

Cloning and phylogenetic analysis of phytoene synthase 1 (*Psy1*) genes in common wheat and related species

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Cloning and phylogenetic analysis of *Psy1* genes in common wheat and its relatives would help to understand the genetic diversity and evolution of *Psy1* gene in common wheat and its related species. In the present study, common wheat (AABBDD) and eight relative species, including *T. urartu* (A^uA^u), *T. boeoticum* (A^mA^m), *T. monococcum* (A^mA^m), *Ae. speltoides* (SS), *Ae. tauschii* (DD), *T. dicoccoides* (AABB), *T. dicoccum* (AABB) and *T. spelta* (AABBDD), were sampled for the isolation of novel alleles at *Psy1-A1*, *Psy1-B1/Psy1-S1* and *Psy1-D1* loci corresponding to common wheat *Psy1* genes, and 27 new alleles were identified at these loci, designated *Psy1-A1f* through *Psy1-A1k*, *Psy1-A1m* and *Psy1-A1n*, *Psy1-B1h* through *Psy1-B1m*, *Psy1-S1a* through *Psy1-S1c*, *Psy1-D1a* through *Psy1-D1j*, respectively. The genes contained six exons and five introns, and the sequences of exons were more conserved compared with those of introns. The *Psy1-A1* genes encoded a polypeptide of 428 aminoacid residues, with one residue longer than those encoded by *Psy1-D1* genes. The *Psy1-B1/Psy1-S1* genes encoded four types of polypeptides, with 421 (*Psy1-B1h* through *Psy1-B1j*, *Psy1-B1l*), 427 (*Psy1-B1k*, *Psy1-S1a* and *Psy1-S1c*), 428 (*Psy1-B1m*), and 429 (*Psy1-S1b*) aminoacid residues, respectively. Neighbor joining tree was generated based on the gene sequences of the 27 novel alleles and those of the 13 alleles reported previously in common wheat and its relatives. The phylogenetic tree consisted of two subtrees. The subtree I comprised 11 of 14 alleles at *Psy1-A1* locus, nine of 16 alleles at *Psy1-B1/Psy1-S1* locus, and ten novel alleles at *Psy1-D1* locus, while the subtree II included the other three alleles at *Psy1-A1* locus, the remaining four *Psy1-B1* alleles and three *Psy1-S1* alleles. The alleles from different clusters showed high sequence divergences, indicated by various SNPs and InDels (insertion/deletion). The phylogenetic relationships of these allelic variants at the three loci in common wheat and its relatives also supported the hypothesis that common wheat was originated by recurrent hexaploidization events. In addition, 193 Chinese wheat cultivars with different yellow pigment contents were genotyped with two novel STS markers *YP7D-1* and *YP7D-2*. The results indicated that 191 cultivars contained the allele *Psy1-D1a*, and two had *Psy1-D1g*.

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The formation of common wheat (*T. aestivum*, AABBDD) was attributed to two evolutionary events (FEUILLET et al. 2001; HUANG et al. 2002; GU et al. 2004; PETERSEN et al. 2006). The first one was the hybridization between the A genome donor *T. urartu* (A^uA^u) and *Ae. speltoides* (SS) or a closely related species (the B genome donor), resulting in the formation of wild emmer wheat (*T. dicoccoides*, AABB). Afterwards, emmer wheat (*T. dicoccum*, AABB), a domesticated form of *T. dicoccoides*, hybridized with the D genome donor *Ae. tauschii* (DD), creating allohexaploid common wheat (AABBDD). Durum wheat (*T. durum*, AABB), an important cereal used for making pasta, is closely related to *T. dicoccum* that was domesticated from *T. dicoccoides* (SALAMINI et al. 2002; OZKAN et al. 2005; JAUHAR 2007; LUO et al. 2007). *T. boeoticum* (A^mA^m) is a wild einkorn wheat species closely related to *T. urartu*, and its domesticated form *T. monococcum* is still being cultivated to a limited extent (GILL and FRIEBE 2002; SALAMINI et al. 2002).

Carotenoids, generated from the isoprenoid pathway, are the primary components of flour yellow pigment (MISKELLY 1984; ADOM et al. 2003; DELLAPENNA and POGSON 2006). The phytoene synthase (*Psy*) is considered a rate-limiting enzyme for the accumulation of carotenoid in the endosperm (HIRSCHBERG 2001; LINDGREN et al. 2003). Duplicated *Psy* genes, *Psy1* and *Psy2*, were characterized in the grass family (GALLAGHER et al. 2004). Also POZNIAK et al. (2007) mapped the *Psy1* and *Psy2* genes to homoeologous group 7 and 5 chromosomes in durum wheat, respectively. However, only *Psy1* exhibited a strong association with yellow pigment content of endosperm in maize (PALAISA et al. 2003; GALLAGHER et al. 2004), and similar conclusion was also reported both in common and durum wheats (POZNIAK et al. 2007; ZHANG and DUBCOVSKY 2008; HE et al. 2008, 2009a), and the QTLs detected on chromosomes 7A and 7B were orthologues of *Psy1* genes associated with grain yellow pigment content.

Resently, ZHANG and DUBCOVSKY (2008) isolated *Psy1-A1* and *Psy1-B1* genes from two durum cultivars U1113 and Kofa, and found the two cultivars shared the same *Psy1-A1* allele, but had different *Psy1-B1* alleles. Likewise, five allelic variants of *Psy1-A1* and seven of *Psy1-B1* were identified in common and durum wheats by HE et al. (2008, 2009a, 2009c), and the functional markers were further developed based on the InDels and SNPs among different alleles for marker-assisted selection in wheat breeding. However, no full-length DNA sequence of *Psy1* genes on chromosome 7D in common wheat has been reported so far, and the orthologs of the three genes in the wild species of common wheat have not been investigated yet. Therefore, the objectives of this study were to characterize allelic variations of *Psy1* on chromosome 7D in common wheat cultivars, isolate novel alleles of *Psy1-A1*, *Psy1-B1/Psy1-S1* and *Psy1-D1* from common wheat relatives, and analyze their sequence characteristics and phylogenetic relationships with the *Psy1* genes in common wheat. This information will expand the knowledge of allelic diversity in the *Psy1* genes and help to understand the genetic evolution of *Psy1* gene in common wheat and its relative species.

MATERIAL AND METHODS

Plant material

Five accessions of *T. boeoticum*, four of *T. monococcum*, five of *T. urartu*, five of *T. dicoccoides*, five of *T. dicoccum* and four of *T. spelta* were used for cloning the *Psy1-A1* gene. Three accessions of *Ae. speltooides* were used for cloning the *Psy1-S1* gene. Five of *T. dicoccoides*, five of *T. dicoccum* and four of *T. spelta* were used for cloning the *Psy1-B1* gene, while two accessions of *T. aestivum*, 15 of *Ae. tauschii* and four of *T. spelta* were employed to clone the *Psy1-D1* gene (Table A1). These accessions are available at the National Key Facilities for Crop Genetic Resources and Improvement (NFCRI), Institute of Crop Science, CAAS, China, except for four accessions of *T. urartu*, i.e. PI428326, PI428333, PI538729 and PI538732, and three of *T. spelta*, i.e. Spelt167, Spelt217 and Spelt220, which were provided by Prof. Yueming Yan at the College of Life Science, Capital Normal University, Beijing, China. The Chinese Spring nullisomic-tetrasomic lines, nullisomic 7A-tetrasomic 7B (N7A-T7B), N7B-T7D, N7D-T7A, and ditelosomic line 7DS, kindly provided by Prof. R. A. McIntosh, University of Sydney, were employed to verify the chromosomal location of the STS markers. One hundred and ninety-three Chinese winter wheat cultivars and advanced lines were used for the investigation of allelic variations at *Psy1-D1* locus.

Field trials and grain yellow pigment assay

During the 2001–2002 and 2002–2003 cropping seasons, 193 Chinese wheat cultivars and advanced lines were sown in a randomized complete block with three replicates in the Anyang experimental station, CAAS located in Henan Province. Each plot consisted of two 2-m rows spaced 25 cm apart, with 100 plants in each row. All field trials were kept free of weeds and diseases, with two applications of broad-range herbicides and fungicides, respectively. The procedure for estimating yellow pigment content in wheat grains followed the recommended AACC method (AACC 1995).

Strategies for the identification of new Psy1 alleles in common wheat and its relatives

The common wheat *Psy1-D1* gene was obtained through a PCR-based cloning approach. Two primer sets *P7B1* and *P7B3* for cloning the 3' and 5' end sequences of *Psy1-B1* in common wheat (HE et al. 2009a) were used to clone the 3' and 5' end sequences of *Psy1-D1* from Chinese Spring nullisomic-tetrasomic line N7B-T7D. Then another primer set *P7D1* (Table 1) was generated to amplify midstream sequence of *Psy1-D1*, with its forward primer generated from the PCR product of *P7B3* and the reverse primer from that of *P7B1*. Subsequently, three primer sets, *P7D2*, *P7D3* and *P7D4*, were developed based on *Psy1-D1a* (EU650397) to isolate its orthologs in *Ae. tauschii* lines (Table 1, Table A1). Meanwhile, based on the sequences of *Psy1-A1a* (EF600063), *Psy1-A1b* (EF600064) and *Psy1-A1c* (EU650391) from common wheats, and *Psy1-A1d* (EU263018) and *Psy1-A1e* (EU263019) from durum wheats (HE et al. 2008, 2009a, 2009c), six pairs of primers, *Y1*, *Y2*, *Y3*, *Y8*, *Y9*, and *Y10*, were developed to amplify the full-length genomic DNA sequences of *Psy1-A1* in wheat relative species (Table 1, Table A1). Likewise, according to the sequences of seven *Psy1-B1* alleles identified by HE et al. (2009a, 2009c), i.e. *Psy1-B1a* (EU650392), *Psy1-B1b* (EU650393), *Psy1-B1c* (EU650394) and *Psy1-B1d* (EU650395) from common wheats, and *Psy1-B1f* (EU263020) and *Psy1-B1g* (EU650396) from durum wheats, and *Psy1-B1e* (EU263021) from both common and durum wheats, six primer sets, *P7B1*, *P7B3*, *P7B8*, *P7B9*, *P7B10* and *P7B11*, were designed to clone the full-length genomic DNA sequences of *Psy1-B1* in common wheat relatives (Table 1, Table A1).

Primers were designed using the software Premier Primer 5 (<www.premierbiosoft.com>) and synthesized by Beijing Augct Biological Technology Co., Ltd. (<www.augct.com>). DNA sequencing was performed in Shanghai Sangon Biological Engineering & Technology and Service Co., Ltd. (<www.sangon.com>).

Complete genomic DNA sequences of *Psy1* genes were constructed by the PCR products for *Psy1-A1*, *Psy1-B1/*

Table 1. Primer sequences used for the cloning of *Psy1* alleles and the STS markers developed for *Psy1-D1* in this study.

Locus	Primer set	Primer sequence (5'–3')	Annealing temperature (°C)	
<i>Psy1-A1</i>	<i>Y1</i>	Forward: GGCAGGCTAGTGGTCGGTA Reverse: TGACGGTCTGAAGTGAGAATGA	62	
	<i>Y2</i>	Forward: GGACCTTGCTGATGACCGAG Reverse: GGGGAACCTGGTGATGGTGTC	62	
	<i>Y3</i>	Forward: TATGGTGCAGGAGGACAGAC Reverse: CAAGATGGTGGATTCAAGGCTC	62	
	<i>Y8</i>	Forward: GAGATGCATACGGCCACTTTA Reverse: CGGGACCAACAACGAGTATA	60	
	<i>Y9</i>	Forward: TATGGTGCAGGAGGACAGAC Reverse: CGGGACCAACAACGAGTATA	60	
	<i>Y10</i>	Forward: TATGGTGCAGGAGGACAGAC Reverse: CAGATGTCGCCACACTGCCA	62	
	<i>Psy1-B1/Psy1-S1</i>	<i>P7B1</i>	Forward: GGACCTCAAGAAGGCAAGAT Reverse: CGGGACCGACAACGAGTATA	63
		<i>P7B3</i>	Forward: GGCAGGCTAGTGGTCGGTA Reverse: GGGGAACCTGGTGATGGTGTC	62
		<i>P7B8</i>	Forward: GGTGCGTGCCTCACTTCTC Reverse: GGGGAACCTGGTGATGGTGTC	62
		<i>P7B9</i>	Forward: GACACCATCACCAAGTTCCCC Reverse: CTGGTTCCGCAACCCGAGA	62
<i>P7B10</i>		Forward: CGAGATCTGCGAGGAGTACGCC Reverse: CTGGTTCCGCAACCCGAGA	60	
<i>P7B11</i>		Forward: CAGATGGCCACCACCGTCAC Reverse: CTGGTTCCGCAACCCGAGA	60	
<i>Psy1-D1</i>		<i>P7D1</i>	Forward: GCAGTGTGGTGTAGGAGGAC Reverse: CGTGGCTTTAGGGCACTTAC	62
	<i>P7D2</i>	Forward: GGCAGGCTAGTGGTCGGTA Reverse: AGGGGCAATCTGATGCTGAC	60	
	<i>P7D3</i>	Forward: CAGATGGCCACCACCGTCAC Reverse: AGGGGCAATCTGATGCTGAC	60	
	<i>P7D4</i>	Forward: TCCGACACCATCACCAAGTTCC Reverse: CCGATTCCCGCATTGACTA	62	
	<i>YP7D-1</i>	Forward: TCCGACACCATCACCAAGTTCC Reverse: CGTTGTAGGTTTGTGGGAGT	58	
	<i>YP7D-2</i>	Forward: ACTCCACAAACCTACAACG Reverse: ACGTCTATCAACCCACG	58	

Psy1-S1, and *Psy1-D1* loci. Intron positions were determined by the alignment of amplified genomic DNA sequences and their corresponding orthologs in common wheat, using the software DNAMAN (<www.lynonn.com>).

Genomic DNA was isolated from kernels following the method modified from LAGUDAH et al. (1991). PCR reactions were performed in an MJ Research PTC-200 thermal cycler in a total volume of 20 µl including 20 mM of Tris-HCl (pH 8.4), 20 mM of KCl, 150 µM of each of dNTPs, 1.5 mM of MgCl₂, 8 pmol of each primer, 1 unit of *Taq* DNA polymerase (TIANGEN Biotech Co.) or *LA-Taq* DNA polymerase (TaKaRa Biotechnology Co., Dalian, China), and 50 ng of genomic DNA. Reaction conditions were 95°C for 5 min, followed by 40 cycles of 95°C for 30 s, 58°C to 63°C for 30 s (according to the

annealing temperatures of different primer sets), and 72°C for 1–3 min, with a final extension of 72°C for 5 min. The PCR products were separated on a 1.5% agarose gel, stained with ethidium bromide, and visualized using UV light. The targeting bands for sequencing were recovered and cloned into pMD18-T vector (TaKaRa Biotechnology Co., Dalian, China) following the manufacturer's instructions.

Phylogenetic analyses

All the genomic DNA sequences of *Psy1* genes cloned in this study, together with those of common wheat and durum wheat genes *Psy1-A1* and *Psy1-B1* cloned previously (HE et al. 2008, 2009a, 2009c; ZHANG and

DUBCOVSKY 2008) were used to construct the phylogenetic trees. Gene sequences were aligned with the software ClustalW 1.83 (THOMPSON et al. 1997). Neighbor joining tree, Minimum evolution tree and Maximum parsimony tree were generated by the program MEGA ver. 4.0 (TAMURA et al. 2007) with default parameters, in which bootstrap test was performed with 1000 replicates.

Identification of allelic variants at *Psy1-D1* locus in chinese wheat cultivars

Molecular markers were developed based on three InDels of 21 bp, 39 bp and 40 bp in the third intron between *Psy1-D1a* and *Psy1-D1g* to test 193 Chinese wheat cultivars and advanced lines. The PCR products from the newly

developed marker, *YP7D-1*, were separated on 6% polyacrylamide gels and subjected to silver staining (BASSAM et al. 1991), and those of *YP7D-2* were separated on 1.5% agarose gels, stained with ethidium bromide and visualized using UV light.

RESULTS

Cloning of *Psy1-A1* genes in wheat relative species

Using the primer sets, *Y1*, *Y2*, *Y3*, *Y8*, *Y9*, and *Y10* (Table 1), eight novel alleles at *Psy1-A1* locus were cloned (Table 2, Fig. 1), i.e. *Psy1-A1f* (from *T. urartu*, FJ393516), *Psy1-A1g* (*T. urartu*, FJ393517), *Psy1-A1h* (*T. boeoticum* and *T. monococcum*, FJ393518), *Psy1-A1i* (*T. monococcum*,

Table 2. Novel alleles at *Psy1-A1*, *Psy1-B1/Psy1-S1* and *Psy1-D1* loci cloned in this study.

Locus	Allele	Species	Genome	Accession ^a	Primer set	GenBank accession number	
<i>Psy1-A1</i>	<i>Psy1-A1f</i>	<i>T. urartu</i>	A ^u	PI428326, (2)	<i>Y1</i> , <i>Y2</i> , <i>Y10</i>	FJ393516	
	<i>Psy1-A1g</i>	<i>T. urartu</i>	A ^u	UR1, (3)	<i>Y1</i> , <i>Y2</i> , <i>Y10</i>	FJ393517	
	<i>Psy1-A1h</i>	<i>T. boeoticum</i>	A ^m	BO1, (5)	<i>Y1</i> , <i>Y2</i> , <i>Y9</i>	FJ393518	
		<i>T. monococcum</i>	A ^m	MO5, (1)	<i>Y1</i> , <i>Y2</i> , <i>Y9</i>		
	<i>Psy1-A1i</i>	<i>T. monococcum</i>	A ^m	MO1, (2)	<i>Y1</i> , <i>Y2</i> , <i>Y9</i>	FJ393520	
	<i>Psy1-A1j</i>	<i>T. monococcum</i>	A ^m	MO2, (1)	<i>Y1</i> , <i>Y2</i> , <i>Y9</i>	FJ393521	
	<i>Psy1-A1k</i>	<i>T. dicoccoides</i>	AB	DS3, (4)	<i>Y1</i> , <i>Y2</i> , <i>Y3</i> , <i>Y8</i>	FJ393522	
		<i>T. dicoccum</i>	AB	DM37, (2)	<i>Y1</i> , <i>Y2</i> , <i>Y3</i> , <i>Y8</i>		
		<i>T. spelta</i>	ABD	Spelt167, (3)	<i>Y1</i> , <i>Y2</i> , <i>Y3</i> , <i>Y8</i>		
	<i>Psy1-A1m</i>	<i>T. dicoccum</i>	AB	DM26, (1)	<i>Y1</i> , <i>Y2</i> , <i>Y3</i> , <i>Y8</i>	FJ393525	
	<i>Psy1-A1n</i>	<i>T. spelta</i>	ABD	SP9, (1)	<i>Y1</i> , <i>Y2</i> , <i>Y3</i> , <i>Y8</i>	FJ393526	
	<i>Psy1-B1/Psy1-S1</i>	<i>Psy1-B1h</i>	<i>T. dicoccoides</i>	AB	DS3, (2)	<i>P7B1</i> , <i>P7B3</i> , <i>P7B9</i>	FJ393531
		<i>Psy1-B1i</i>	<i>T. dicoccoides</i>	AB	DS8, (1)	<i>P7B1</i> , <i>P7B3</i> , <i>P7B9</i>	FJ393532
		<i>Psy1-B1j</i>	<i>T. dicoccum</i>	AB	DM26, (1)	<i>P7B1</i> , <i>P7B3</i> , <i>P7B9</i>	FJ393533
<i>Psy1-B1k</i>		<i>T. dicoccum</i>	AB	DM33, (1)	<i>P7B1</i> , <i>P7B8</i> , <i>P7B9</i>	FJ393534	
<i>Psy1-B1l</i>		<i>T. dicoccum</i>	AB	DM37, (1)	<i>P7B1</i> , <i>P7B3</i> , <i>P7B9</i>	FJ393535	
<i>Psy1-B1m</i>		<i>T. dicoccum</i>	AB	DM47, (1)	<i>P7B1</i> , <i>P7B10</i> , <i>P7B11</i>	FJ393539	
		<i>T. spelta</i>	ABD	Spelt167, (3)	<i>P7B1</i> , <i>P7B10</i> , <i>P7B11</i>		
<i>Psy1-S1a</i>		<i>Ae. speltoides</i>	S	Ae48	<i>P7B1</i> , <i>P7B3</i> , <i>P7B10</i>	FJ393536	
<i>Psy1-S1b</i>		<i>Ae. speltoides</i>	S	Ae49	<i>P7B1</i> , <i>P7B8</i> , <i>P7B10</i>	FJ393537	
<i>Psy1-S1c</i>		<i>Ae. speltoides</i>	S	Y162	<i>P7B1</i> , <i>P7B3</i> , <i>P7B10</i>	FJ393538	
<i>Psy1-D1</i>		<i>Psy1-D1a</i>	<i>T. aestivum</i>	ABD	Chinese Spring, (1)	<i>P7B1</i> , <i>P7B3</i> , <i>P7D1</i>	EU650397
	<i>Psy1-D1b</i>	<i>Ae. tauschii</i>	D	Ae34, (4)	<i>P7D2</i> , <i>P7D4</i>	FJ393542	
	<i>Psy1-D1c</i>	<i>Ae. tauschii</i>	D	Ae46, (6)	<i>P7D2</i> , <i>P7D4</i>	FJ393543	
	<i>Psy1-D1d</i>	<i>Ae. tauschii</i>	D	Y99, (2)	<i>P7D2</i> , <i>P7D4</i>	FJ393544	
	<i>Psy1-D1e</i>	<i>T. spelta</i>	ABD	SP9, (2)	<i>P7D2</i> , <i>P7D4</i>	FJ393545	
	<i>Psy1-D1f</i>	<i>T. spelta</i>	ABD	Spelt217, (2)	<i>P7D2</i> , <i>P7D4</i>	FJ393546	
	<i>Psy1-D1g</i>	<i>T. aestivum</i>	ABD	Zhongliang 88375, (2)	<i>P7D2</i> , <i>P7D4</i>	FJ807498	
	<i>Psy1-D1h</i>	<i>Ae. tauschii</i>	D	Ae37, (1)	<i>P7D3</i> , <i>P7D4</i>	FJ807499	
	<i>Psy1-D1i</i>	<i>Ae. tauschii</i>	D	Ae38, (1)	<i>P7D3</i> , <i>P7D4</i>	FJ807500	
	<i>Psy1-D1j</i>	<i>Ae. tauschii</i>	D	Ae42, (1)	<i>P7D2</i> , <i>P7D4</i>	FJ807501	

^aThe number of accessions of each genotype was indicated in parentheses, and a representative accession was shown for each allele. Accession identifiers were from NFCRI, Institute of Crop Science, CAAS, China and College of Life Science, Capital Normal University, Beijing, China.

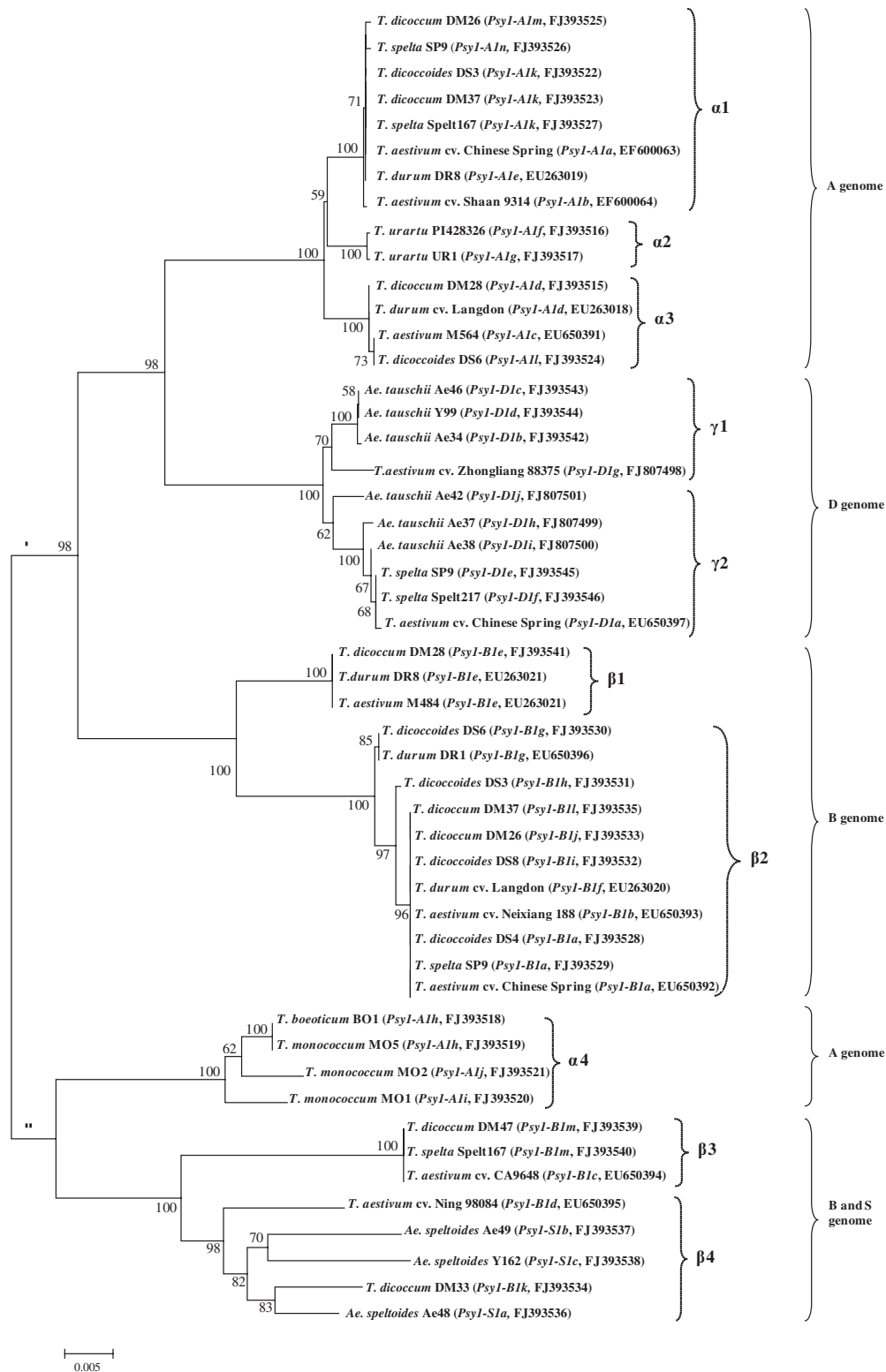


Fig. 1. Phylogenetic tree of the *Psyl* gene families in common wheat and related species. The tree was constructed by the software MEGA ver. 4.0 with neighbor joining algorithm, including 27 new alleles found in this study and seven alleles in common wheat and five alleles in durum wheat and one in both of them reported previously (ZHANG and DUBCOVSKY 2008, HE et al. 2008, 2009a, 2009c). Genes are labeled by species name, accession identifier, allele name and GenBank accession number. Different species have its corresponding GenBank accession number even if they shared the same allele. Bootstrap values are shown and the scale bar indicates the number of nucleotide substitutions per site.

FJ393520), *Psy1-A1j* (*T. monococcum*, FJ393521), *Psy1-A1k* (*T. dicoccoides* and *T. dicoccum* and *T. spelta*, FJ393522), *Psy1-A1m* (*T. dicoccum*, FJ393525), and *Psy1-A1n* (*T. spelta*, FJ393526).

The eight *Psy1-A1* alleles detected in the wheat relatives showed high similarities at the deduced amino acid sequences, ranging from 98.3% to 100%, and they shared the same size of open reading frame (ORF) with 1284 bp, encoding a polypeptide of 428 residues. However, these *Psy1-A1* alleles demonstrated lower DNA sequence identities, ranging from 71.4% to 99.9%, which were mainly attributed to a number of SNPs and several InDels in the introns (Fig. A1).

Cloning of *Psy1-B1/Psy1-S1* genes in wheat relative species

Utilizing the primer sets, *P7B1*, *P7B3*, *P7B8* through *P7B11* (Table 1), nine novel alleles at *Psy1-B1/Psy1-S1* locus were obtained (Table 2, Fig. 1), i.e. *Psy1-B1h* (from *T. dicoccoides*, FJ393531), *Psy1-B1i* (*T. dicoccoides*, FJ393532), *Psy1-B1j* (*T. dicoccum*, FJ393533), *Psy1-B1k* (*T. dicoccum*, FJ393534), *Psy1-B1l* (*T. dicoccum*, FJ393535), *Psy1-B1m* (*T. dicoccum* and *T. spelta*, FJ393539), *Psy1-S1a* (*Ae. speltoides*, FJ393536), *Psy1-S1b* (*Ae. speltoides*, FJ393537) and *Psy1-S1c* (*Ae. speltoides*, FJ393538).

The nine *Psy1-B1/Psy1-S1* alleles cloned in this study shared lower sequence identities of 53.0 to 99.7%, exhibiting divergent sequences, with significant numbers of SNPs and InDels (Fig. A2). Nevertheless, they showed high identities in the deduced amino acid sequences, ranging from 92.4% to 100%. The sizes of the exons were conserved among the alleles except the first exon (Table 3), encoding four different types of polypeptides, with 421 (*Psy1-B1h* through *Psy1-B1j*, *Psy1-B1l*), 427 (*Psy1-B1k*, *Psy1-S1a* and *Psy1-S1c*), 428 (*Psy1-B1m*), and 429 (*Psy1-S1b*) amino acid residues, respectively.

Cloning of *Psy1-D1* genes in common wheat and its relative species

The cloned genomic DNA sequence of the *Psy1-D1* allele from Chinese Spring, designated *Psy1-D1a* (GenBank accession EU650397), contained 4653 base pairs, including a 186-bp 5' UTR and a 302-bp 3' UTR. The *Psy1-D1a* allele had an ORF of 1281 bp, encoding 427 amino acid residues, with a calculated molecular mass of ~47.7 kDa.

With the primer sets, *P7D2*, *P7D3* and *P7D4* (Table 1), nine other allelic variants at *Psy1-D1* locus were isolated (Table 2), i.e. *Psy1-D1b* (*Ae. tauschii*, FJ393542), *Psy1-D1c* (*Ae. tauschii*, FJ393543), *Psy1-D1d* (*Ae. tauschii*, FJ393544), *Psy1-D1e* (*T. spelta*, FJ393545), *Psy1-D1f* (*T. spelta*, FJ393546), *Psy1-D1g* (*T. aestivum*, FJ807498), *Psy1-D1h* (*Ae. tauschii*, FJ807499), *Psy1-D1i* (*Ae. tauschii*, FJ807500) and *Psy1-D1j* (*Ae. tauschii*, FJ807501).

All the ten *Psy1-D1* alleles encoded the same polypeptide except for *Psy1-D1j*, differing in the 2nd (substitution from alanine in *Psy1-D1a* to proline in *Psy1-D1j*), 56th (leucine to valine) and 122nd (alanine to threonine) residues. The differences in intron regions resulted in the DNA sequence divergences, ranging from 85.7% to 100%, among ten *Psy1-D1* alleles (Fig. A3). In the first intron, the allele *Psy1-D1j*, from *Ae. tauschii* Ae42, showed a 174-bp insertion compared with the other *Psy1-D1* alleles. In the second intron, the alleles *Psy1-D1b*, *c*, *d* and *g* had a 172 bp deletion compared with the other six alleles *Psy1-D1a*, *e*, *f*, *h*, *i* and *j*. Interestingly, a large InDel of 1252 bp and three other InDels of 21 bp, 39 bp and 40 bp were present in the third intron; compared with the alleles *Psy1-D1a*, *e*, *f* and *i*, the alleles *Psy1-D1b*, *c*, *d* and *j* showed a 1252 bp deletion and a 40 bp insertion, the allele *Psy1-D1g* had three insertions of 21 bp, 39 bp and 40 bp, and the allele *Psy1-D1h* showed only the 40 bp insertion (Fig. A3).

Allelic variants at *Psy1-D1* locus in Chinese wheat cultivars

Two co-dominant markers, *YP7D-1* and *YP7D-2*, were developed to discriminate the alleles *Psy1-D1a* and *Psy1-D1g* of common wheat (Table 1). The former primer set amplified 1074 bp and 1093 bp fragments in the genotypes with *Psy1-D1a* and *Psy1-D1g*, respectively (Fig. 2), and the latter produced 967 bp and 1046 bp fragments in the cultivars with *Psy1-D1a* and *Psy1-D1g*, respectively (Fig. 2). The location of *YP7D-1* and *YP7D-2*, on the long arm of chromosome 7D, was determined by amplifying genomic DNA from a set of Chinese Spring nulli-tetrasomic lines and ditelosomic line 7DS (Fig. 3). For the 193 Chinese wheat cultivars and advanced lines genotyped with the markers *YP7D-1* and *YP7D-2*, all were the genotype of *Psy1-D1a*, except for two lines, CA9550 and Zhongliang 88375, with the allele *Psy1-D1g*. The association between the allelic variants at *Psy1-D1* locus and yellow pigment content in the Chinese wheat cultivars was not analyzed due to a very limiting number of *Psy1-D1g* genotype.

Phylogenetic inferences and sequence comparisons

Using program MEGA, three trees were generated by different algorithms, and only the neighbor joining tree is presented here (Fig. 1). Topologies of the three trees are highly similar to each other, and they differed in the relative position of *Psy1-S1c* and two other alleles, *Psy1-B1d* and *Psy1-S1b*, i.e. in the minimum evolution tree and neighbor joining tree, *Psy1-S1c* was located on the inner clade forming a cluster with *Psy1-S1b*, while it was located on the outer clade forming a cluster with *Psy1-B1d* in the maximum parsimony tree. The other clades and clusters

Table 3. Sizes (bp) in exons and introns of *Psy1* alleles identified in the previous and present study.

Locus	Allele	1st exon	1st intron	2nd exon	2nd intron	3rd exon	3rd intron	4th exon	4th intron	5th exon	5th intron	6th exon	
<i>Psy1-AI</i>	<i>Psy1-AIa</i> , <i>Psy1-AIk</i> , <i>Psy1-AIm</i> , <i>Psy1-AIn</i>	460	118	51	591	173	652	236	804	193	199	171	
	<i>Psy1-AIb</i> , <i>Psy1-AIe</i>	460	118	51	628	173	652	236	804	193	199	171	
	<i>Psy1-AIc</i>	460	118	51	591	173	652	236	116	193	202	171	
	<i>Psy1-AId</i> , <i>Psy1-AIl</i>	460	118	51	591	173	653	236	116	193	202	171	
	<i>Psy1-AIf</i>	460	118	51	591	173	653	236	116	193	203	171	
	<i>Psy1-AIg</i>	460	118	51	590	173	653	236	116	193	204	171	
	<i>Psy1-AIh</i>	460	106	51	591	173	456	236	121	193	239	171	
	<i>Psy1-AIi</i>	460	107	51	595	173	455	236	121	193	237	171	
	<i>Psy1-AIj</i>	460	107	51	595	173	455	236	121	193	238	171	
	<i>Psy1-BI/</i> <i>Psy1-SI</i>	<i>Psy1-BIa</i> , <i>Psy1-BIj</i>	439	125	51	598	173	620	236	116	193	210	171
		<i>Psy1-BIb</i>	439	125	51	598	173	620	236	116	193	215	171
		<i>Psy1-BIc</i>	460	126	51	647	173	917	236	124	193	201	171
		<i>Psy1-BId</i>	469	129	51	578	173	1065	236	124	193	248	171
		<i>Psy1-BIe</i>	439	125	51	580	173	645	236	116	193	211	171
<i>Psy1-BIf</i> , <i>Psy1-BIh</i>		439	125	51	598	173	620	236	116	193	211	171	
<i>Psy1-BIg</i> , <i>Psy1-BIi</i>		439	125	51	598	173	620	236	116	193	213	171	
<i>Psy1-BIk</i>		457	125	51	569	173	1070	236	124	193	248	171	
<i>Psy1-BIl</i>		439	125	51	577	173	620	236	116	193	212	171	
<i>Psy1-BIm</i>		460	126	51	647	173	914	236	124	193	201	171	
<i>Psy1-SIa</i>		457	126	51	570	173	902	236	124	193	247	171	
<i>Psy1-SIb</i>		463	126	51	570	173	1058	236	124	193	247	171	
<i>Psy1-SIc</i>		457	127	51	555	173	905	236	124	193	248	171	
<i>Psy1-DI</i>		<i>Psy1-DIa</i> , <i>Psy1-DIe</i> , <i>Psy1-DIf</i> , <i>Psy1-DIi</i>	457	121	51	577	173	1864	236	121	193	201	171
	<i>Psy1-DIb</i> , <i>Psy1-DIc</i>	457	121	51	403	173	652	236	121	193	200	171	
	<i>Psy1-DId</i>	457	121	51	403	173	652	236	121	193	199	171	
	<i>Psy1-DIg</i>	457	121	51	404	173	1962	236	121	193	201	171	
	<i>Psy1-DIh</i>	457	121	51	577	173	1901	236	121	193	201	171	
	<i>Psy1-DIj</i>	457	295	51	575	173	649	236	121	193	201	171	

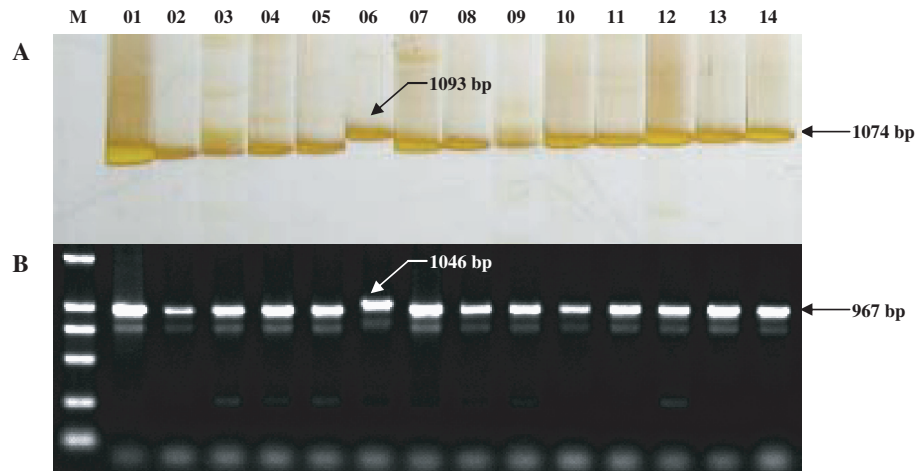


Fig. 2A–B. PCR amplification with the markers *YP7D-1* (A) and *YP7D-2* (B) in 14 Chinese winter wheat lines. M – DNA ladder DL2000; 01 Nongda 3291 (*PsyI-D1a*, yellow pigment content 3.18 mg kg⁻¹); 02 Shannong 1355 (*PsyI-D1a*, 3.36); 03 Yan 2801 (*PsyI-D1a*, 2.69); 04 Yun 97169 (*PsyI-D1a*, 3.42); 05 N9209-3 (*PsyI-D1a*, 2.27); 06 Zhongliang 88375 (*PsyI-D1g*, 2.88); 07 Shannong 413863 (*PsyI-D1a*, 1.84); 08 Huaimai 17 (*PsyI-D1a*, 1.16); 09 Jimai 1 (*PsyI-D1a*, 0.93); 10 Xinong 336 (*PsyI-D1a*, 0.48); 11 Ning 97-18 (*PsyI-D1a*, 0.35); 12 Huaimai 16 (*PsyI-D1a*, 0.57); 13 E86642 (*PsyI-D1a*, 0.62); 14 R25 (*PsyI-D1a*, 0.86). (A) The PCR products from *YP7D-1* were separated on 6% polyacrylamide gels. (B) The PCR products from *YP7D-2* were separated on 1.5% agarose gels.)

were identical among the three trees and were well supported by high bootstrap values.

The phylogenetic tree consisted of two subtrees (Fig. 1). The subtree I comprised 11 out of 14 alleles at *PsyI-AL* locus, 10 alleles at *PsyI-DI* locus and nine out of 16 alleles at *PsyI-B1/PsyI-SI* locus, while subtree II included the other three alleles of *PsyI-AL*, i.e. *PsyI-ALh*, *PsyI-ALi*, *PsyI-ALj* and the other seven alleles at *PsyI-B1/PsyI-SI* locus, i.e. *PsyI-B1c*, *PsyI-B1d*, *PsyI-B1k*, *PsyI-B1m*, *PsyI-S1a*, *PsyI-S1b* and *PsyI-S1c*. Within the subtree I, three groups were found, i.e. *PsyI-AL* group, *PsyI-B1* group and *PsyI-DI* group.

The *PsyI-AL* group was further divided into three clusters, 1, 2 and 3, and the first one included *PsyI-ALa* and

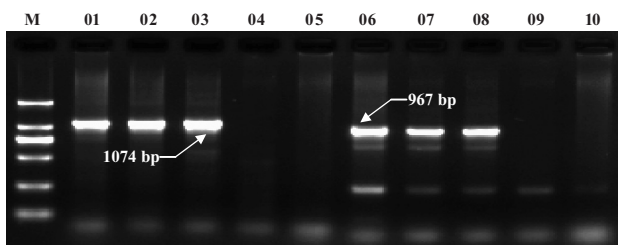


Fig. 3. PCR amplification of Chinese Spring, its nullisomic-tetrasomic lines, and ditelosomic line 7DS with STS markers *YP7D-1* and *YP7D-2*, respectively. M – DNA ladder DL2000; Chinese Spring (lanes 01 and 06); 02 N7A-T7B (lanes 02 and 07); 03 N7B-T7D (lanes 03 and 08); 04 N7D-T7A (lanes 04 and 09); 05 DT7DS (lanes 05 and 10).

PsyI-ALb from common wheat and *PsyI-ALe* from durum wheat, *PsyI-ALk* from *T. dicoccoides*, *T. dicoccum* and *T. spelta*, *PsyI-ALm* and *PsyI-ALn* from *T. dicoccum* and *T. spelta*, respectively. Evidently, *T. dicoccoides* DS3, *T. dicoccum* DM37 and *T. spelta* Spelt167 shared the same allele, *PsyI-ALk*, which was highly homologous to that of *T. aestivum* cv. Chinese Spring (*PsyI-ALa*) with only one SNP in the fourth intron, and that of *T. dicoccum* DM26 (*PsyI-ALm*) and *T. spelta* Spelt167 (*PsyI-ALn*) with a few SNPs in introns (Fig. A1). The allele from *T. aestivum* Shaan 9314 (*PsyI-ALb*) and that from *T. durum* DR8 (*PsyI-ALe*) showed high sequence identity, with only one synonymous SNP in the first exon. Although the allele from *PsyI-ALb* resided on the peripheral clade of the cluster 1, only a 37 bp InDel and a few SNPs were detected between *PsyI-ALb* and other *PsyI-AL* alleles in this cluster, demonstrating their close relationships. The second one consisted of *PsyI-ALf* and *PsyI-ALg* from *T. urartu*. There was two 1 bp InDels and two SNPs between them in introns (Fig. A1). The last one contained *PsyI-ALc* from common wheat, *PsyI-ALd* from *T. durum* and *T. dicoccum*, and *PsyI-ALl* from *T. dicoccoides* (Fig. 1). It is notable that *T. dicoccum* DM28, *T. durum* Langdon shared the same allele *PsyI-ALd*, which was highly homologous to that of *T. aestivum* M564 (*PsyI-ALc*) with only one 1 bp InDel and one SNP in introns, and that of *T. dicoccoides* DS6 (*PsyI-ALl*) with only one SNP in the fifth intron, respectively (Fig. A1).

The *PsyI-DI* group was further divided into two clusters, 1 and 2, and the former included *PsyI-D1b*, *PsyI-D1c* and

Psy1-D1d from *Ae. tauschii* and *Psy1-D1g* from *T. aestivum*, which shared a very high identity of 97.7 to 99.9%. Although the allele *Psy1-D1g* from common wheat resided on the peripheral clade of cluster 1, only several SNPs and a 1311 bp InDel were detected between *Psy1-D1g* and other *Psy1-D1* alleles in this cluster, demonstrating their close relationships. The latter contained *Psy1-D1a* from common wheat, *Psy1-D1e* and *Psy1-D1f* from *T. spelta*, and *Psy1-D1h*, *Psy1-D1i* and *Psy1-D1j* from *Ae. tauschii*, which showed high sequence identity of 91.3 to 100%. Three SNPs were found in introns among *Psy1-D1a*, *Psy1-D1e* and *Psy1-D1f*. Actually, *Psy1-D1e* was identical to *Psy1-D1f* in the coding region, and there was only one SNP in 5' untranslated region between them. In addition, three SNPs in introns and one synonymous SNP in the first exon were found between *Psy1-D1a* from *T. aestivum* and *Psy1-D1i* from *Ae. tauschii*, demonstrating their close relationships (Fig. A3). It is notable that the allele *Psy1-D1j* and *Psy1-D1h* located on the outer clade of the cluster 2 (Fig. 1), which were mainly attributed to several SNPs and InDels. What the allele *Psy1-D1j* mainly differed from *Psy1-D1a* was a 174 bp insertion in the first intron, and a 1252 bp deletion and a 40 bp insertion in the third intron, respectively. The allele *Psy1-D1h* showed a 40 bp insertion in the third intron compared with *Psy1-D1a*, besides a 1 bp InDel, a 2 bp InDel and 17 SNPs in introns and one synonymous SNP in the first exon (Fig. A3).

Similarly, the *Psy1-B1* group also comprised two clusters, 1 and 2, and the former included *Psy1-B1e* found in durum, *T. dicoccum* and common wheat, and the latter contained *Psy1-B1a* from *T. dicoccoides*, *T. spelta* and common wheat, *Psy1-B1b* from common wheat, *Psy1-B1f* from durum wheat, *Psy1-B1g* from *T. dicoccoides* and durum wheat, *Psy1-B1h* and *Psy1-B1i* from *T. dicoccoides*, and *Psy1-B1j* and *Psy1-B1l* from *T. dicoccum* (Fig. 1). *T. dicoccum* DM28, *T. durum* DR8, and *T. aestivum* M484 shared the same allele, *Psy1-B1e*, showing lower sequence identities with the other *Psy1-B1* alleles. Likewise, *T. dicoccoides* DS6 and *T. durum* DR1 shared the same allele, *Psy1-B1g*, which resided on the outer clade of the cluster 2, besides *T. dicoccoides* (*Psy1-B1h*). There was a 3 bp InDel in the poly C region of the fifth intron between *Psy1-B1g* and *Psy1-B1a* (Fig. A2). Of the eight SNPs between the two alleles, three were found in introns and five in exons resulting in the changes of three amino acid residues at positions 95 (substitution from leucine in *Psy1-B1a* to valine in *Psy1-B1g*), 128 (lysine to glutamate) and 324 (valine to phenylalanine), respectively. *Psy1-B1h* showed a 1 bp InDel in the Poly C region of the fifth intron and four SNPs compared with *Psy1-B1a*, with three in introns and one in exons, resulting in a shift from valine to phenylalanine in deduced amino acid sequences. In addition, *T. dicoccoides* DS4, *T. spelta* SP9 and *T. aestivum* Chinese Spring shared the same allele, *Psy1-B1a*, which was highly homologous to those of *T. aestivum* (*Psy1-*

B1b), *T. dicoccoides* (*Psy1-B1i*), *T. dicoccum* (*Psy1-B1j* and *Psy1-B1l*), and *T. durum* (*Psy1-B1f*) with a few SNPs and InDels in the introns (Fig. A2).

Within the subtree II, two groups were found, i.e. *Psy1-A1* group and *Psy1-B1/Psy1-S1* group. The *Psy1-A1* group included *Psy1-A1h* from *T. boeoticum* and *T. monococcum*, and *Psy1-A1i* and *Psy1-A1j* from *T. monococcum*. The accessions *T. boeoticum* BO1, *T. monococcum* M5 shared the same allele, *Psy1-A1h*, encoding exactly the same polypeptide sequence as *Psy1-A1i*, but different from that of *Psy1-A1j* with only four residues at positions 112 (substitution from serine in *Psy1-A1h* to glutamine in *Psy1-A1j*), 116 (glutamine to alanine), 117 (glutamine to alanine) and 118 (alanine to glutamine), respectively. Apart from several SNPs and InDels, the sequence differences between *Psy1-A1* alleles from *T. boeoticum* and *T. monococcum* and other *Psy1-A1* alleles from common wheat and its relatives were mainly present in one 210 bp InDel, located in the third intron (Fig. A1).

The *Psy1-B1/Psy1-S1* group was further divided into two clusters, 3 and 4, and the former included *Psy1-B1c* from common wheat, and *Psy1-B1m* from *T. dicoccum* and *T. spelta*. A same allele, *Psy1-B1m*, was detected in *T. dicoccum* DM47 and *T. spelta* Spelta167, highly similar to *Psy1-B1c*, an allele from *T. aestivum* cv. CA9648, with only one SNP and two 1 bp InDels in the third intron, demonstrating their close relationships. The latter contained *Psy1-B1d* from common wheat, *Psy1-B1k* from *T. dicoccum* and *Psy1-S1a*, *Psy1-S1b*, *Psy1-S1c* from *Ae. speltoides*. A sequence identity of 90.1 to 96.6% was shown among these five *Psy1-B1/Psy1-S1* alleles in the cluster 4. The allele *Psy1-B1k* from *T. dicoccum* DM33 and *Psy1-S1a* from *Ae. speltoides* Ae48 shared a very high sequence identity of 96.6%, with a few SNPs and InDels, particularly a 163 bp InDel in the third intron (Fig. A2). Moreover, they shared a highly similar polypeptide sequence and differed only in the 62nd (substitution from valine in *Psy1-B1k* to alanine in *Psy1-S1a*) and 275th (aspartate to glutamate) residues, demonstrating their close relationships.

DISCUSSION

Phylogenetic relationships of the Psy1 alleles and the origin of common wheat

Common wheat (*T. aestivum*, AABBDD) originated from the hybridization of emmer wheat (*T. dicoccum*, AABB) with *Ae. tauschii* (DD) about 8000 years ago (HUANG et al. 2002). Many studies suggested more than one emmer line was involved in the formation of allohexaploid wheat (GU et al. 2004; ISIDORE et al. 2005; RAGUPATHY et al. 2008; HE et al. 2009b). Similarly, our results may also imply the same result of polyphyletic origin of common wheat as

demonstrated above. We found *T. spelta* Spelt167 shared the same allele, *Psy1-A1k*, with *T. dicoccoides* DS3 and *T. dicoccum* DM37. In addition, *T. dicoccoides* DS4, *T. spelta* SP9 and *T. aestivum* Chinese Spring shared the same allele, *Psy1-B1a*. From the above results, we can deduce that common wheat was domesticated from *T. spelta* which might be the earliest hexaploid wheat. It is notable that durum and emmer wheats shared the same ancestor of *T. dicoccoides* and closely related to each other (SALAMINI et al. 2002; OZKAN et al. 2005; JAUHAR 2007). In the present study, *T. dicoccum* DM28, *T. durum* Langdon shared the same allele, *Psy1-A1d*, and the common allele *Psy1-B1g* was also isolated from *T. dicoccoides* DS6 and *T. durum* DR1. We also found that the allele *Psy1-A1l* from *T. dicoccoides* DS6 was identical to *TiPSY1-A1* (EU096090; ZHANG and DUBCOVSKY 2008) identified from durum cultivars U1113 and Kofa, further supporting the above theory. Based on the previous (HE et al. 2009a, 2009b, 2009c) and present studies, common wheat may be created by recurrent hexaploidization events, involving more than one *T. dicoccum* and *Ae. tauschii* lines, coinciding with the theory of recurrent formation of polyploid plant proposed by SOLTIS et al. (1999).

The A genome of common and durum wheats was originated from *T. urartu* (DVORAK et al. 1993; CIAFFI et al. 2000; HUANG et al. 2002; PETERSEN et al. 2006), which is in agreement with the results inferred from the structure of the subtree I (Fig. 1), where the allele from *T. urartu* was clustered with those from tetraploid and hexaploid wheats. As expected, the three alleles, *Psy1-A1h* from *T. boeoticum* and *T. monococcum*, and *Psy1-A1i* and *Psy1-A1j* from *T. monococcum*, were clustered together as outgroup of the tribe, which were markedly different from the other *Psy1-A1* alleles with a number of SNPs and InDels, further supporting the above theory.

On the other hand, three trees were generated based on different algorithms; nevertheless, topologies of the trees were highly similar to each other, implying the validity of the phylogenetic relationships. Only the relative position of *Psy1-S1c* and the two other alleles, *Psy1-B1d* and *Psy1-S1b*, differed in the three trees as mentioned above, which were probably due to unusual sequence characteristics of these alleles making variable phylogenetic inferences when different algorithms were used. These *Psy1-B1/ Psy1-S1* alleles in subtree II exhibited largely sequence divergences from those in subtree I, ranging from 53.0 to 71.1%. As expected, the seven alleles, *Psy1-B1c* and *Psy1-B1d* from common wheat, *Psy1-B1k* from *T. dicoccum*, *Psy1-S1a*, *Psy1-S1b*, *Psy1-S1c* from *Ae. speltoides*, and *Psy1-B1m* from *T. dicoccum* and *T. spelta*, were clustered together as outgroup of the phylogenetic tree. HE et al. (2009a) inferred *Psy1-B1c* and *Psy1-B1d* probably evolved from a common ancestor early in the divergence of the *Psy1-B1* alleles from the common presence of a

Stowaway element in the third introns. In this study, we also found the *Stowaway* element in *Psy1-B1m*, *Psy1-B1k*, *Psy1-S1a* through *Psy1-S1c* (Fig. A2), demonstrating that *Ae. speltoides* might be the B genome donor of common wheat or at least major donor of that. Moreover, the allele *Psy1-B1c* of common wheat showed high sequence identity with that of *T. dicoccum* DM47 (*Psy1-B1m*) and *T. spelta* Spelta167 (*Psy1-B1m*), with only one SNP and two 1 bp InDels detected, suggesting that *Psy1-B1c* might have evolved from *Psy1-B1m*, or inherited from an ancestor closely related to *T. dicoccum* DM47. Therefore, discovery of *Psy1-B1m* from common wheat relative species further supported that *Psy1-B1c* and *Psy1-B1d* must have been inherited from two ancestors of emmer wheat (HE et al. 2009c). Similarly, another unusual sequence characteristic allele, *Psy1-B1e*, was detected in CIMMYT wheat line M484 and durum wheat line DR8 by HE et al. (2009a, 2009c). They suggested that the allele *Psy1-B1e* found in common wheat was actually introduced from durum wheat by an introgression event. However, in this study, we isolated *Psy1-B1e* in *T. dicoccum* DM28, indicating that *Psy1-B1e* from common wheat inherited from an ancestor of *T. dicoccum*, and further demonstrated the very close relationship between emmer wheat and durum wheat, which shared the common ancestor of *T. dicoccoides*.

In the recent years, increasing evidences showed that more than one *Ae. tauschii* lines participated in the formation of allohexaploid common wheat (HAMMER 1980; DVORAK et al. 1998; LELLEY et al. 2000; CALDWELL et al. 2004; GILES and BROWN 2006; HE et al. 2009b). In this study, the genome tribe D included two distinct alleles from common wheat, *Psy1-D1a* and *Psy1-D1g* (Fig. A3), implying they have been inherited from different *Ae. tauschii* donors. The allele *Psy1-D1i* from *Ae. tauschii* Ae38 showed great sequence identity with the allele *Psy1-D1a* from common wheat, with only one synonymous SNP in the first exon and three SNPs in introns, indicating that *Psy1-D1a* from common wheat might have been derived from *Ae. tauschii* Ae38 or other *Ae. tauschii* donors closely related to it. However, the ancestor of *Psy1-D1g* was not identified in this study. This may be ascribed to the limited samples of *Ae. tauschii* accessions, missing the *Ae. tauschii* lines with an allele related to the ancestor of *Psy1-D1g*.

Allelic variants of Psy1-D1 in common wheat

Grain yellow pigment content is an important trait in common wheat. The two *Psy1* genes highly associated with grain yellow pigment content, *Psy1-A1* and *Psy1-B1* on chromosomes 7A and 7B, respectively, were identified previously (PARKER et al. 1998; MA et al. 1999; MARES and CAMPBELL 2001; KUCHEL et al. 2006; ZHANG et al. 2006; HE et al. 2008, 2009a; ZHANG et al. 2009). However, no QTLs

for grain yellow pigment content on chromosomes 7D have been detected in common wheat yet. This might be attributed to little variation at *Psy1-D1* locus of common wheat. In the present study, 193 Chinese wheat cultivars and advanced lines with different yellow pigment contents were genotyped with the markers *YP7D-1* and *YP7D-2*, and 191 of them were the genotype of *Psy1-D1a*, and only two lines, CA9550 and Zhongliang 88375, had the allele *Psy1-D1g*. The results indicated that little variation was present at *Psy1-D1* locus in common wheat cultivars, and thus no major QTL for yellow pigment content were detected on chromosome 7D. However, we can not rule out the possibility that the InDels among the allelic variants at *Psy1-D1* locus might influence the splicing of premature mRNA, which could influence the expression of the *Psy1-D1* gene. HOWITT et al. (2009) reported that the 37 bp insertion at the 5'-end of the second intron of *Psy1-A1b* created a new splice site, resulting in four different transcripts, in which only the wild type splice variant could produce an enzymatically active protein. Thus it is essential to intensively study the *Psy1-D1* alleles of common wheat and its relatives in the future, which might help us to understand the molecular mechanism of grain yellow pigment content.

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APPENDIX 1

Table A1. Forty-eight accessions of wheat and its relatives used in this study.

Accession identifier ^a	Species	Genome	Allele	Donor ^b	Origin ^b
PI428326	<i>T. urartu</i>	A ^u	<i>Psyl-A1f</i>	Lebanon	/
PI428333	<i>T. urartu</i>	A ^u	<i>Psyl-A1f</i>	Lebanon	/
UR1	<i>T. urartu</i>	A ^u	<i>Psyl-A1g</i>	/	Hungary
PI538729	<i>T. urartu</i>	A ^u	<i>Psyl-A1g</i>	Turkey	/
PI538732	<i>T. urartu</i>	A ^u	<i>Psyl-A1g</i>	Turkey	/
BO1	<i>T. boeoticum</i>	A ^m	<i>Psyl-A1h</i>	/	/
BO3	<i>T. boeoticum</i>	A ^m	<i>Psyl-A1h</i>	Germany	/
BO5	<i>T. boeoticum</i>	A ^m	<i>Psyl-A1h</i>	USA	/
BO8	<i>T. boeoticum</i>	A ^m	<i>Psyl-A1h</i>	Hungary	/
BO9	<i>T. boeoticum</i>	A ^m	<i>Psyl-A1h</i>	Hungary	/
MO1	<i>T. monococcum</i>	A ^m	<i>Psyl-A1i</i>	/	/
MO2	<i>T. monococcum</i>	A ^m	<i>Psyl-A1j</i>	/	Soviet Union
MO4	<i>T. monococcum</i>	A ^m	<i>Psyl-A1i</i>	/	Spain
MO5	<i>T. monococcum</i>	A ^m	<i>Psyl-A1h</i>	Germany	/
Ae48	<i>Ae. speltoides</i>	S	<i>Psyl-S1a</i>	Germany	Israel
Ae49	<i>Ae. speltoides</i>	S	<i>Psyl-S1b</i>	Germany	Turkey
Y162	<i>Ae. speltoides</i>	S	<i>Psyl-S1c</i>	Germany	Iraq
Ae34	<i>Ae. tauschii</i>	D	<i>Psyl-D1b</i>	Canada	/
Ae35	<i>Ae. tauschii</i>	D	<i>Psyl-D1b</i>	Canada	/
Ae37	<i>Ae. tauschii</i>	D	<i>Psyl-D1h</i>	France	Soviet Union
Ae38	<i>Ae. tauschii</i>	D	<i>Psyl-D1i</i>	France	Iran
Ae39	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	France	Soviet Union
Ae42	<i>Ae. tauschii</i>	D	<i>Psyl-D1j</i>	Sichuan, China	Shaanxi, China
Ae43	<i>Ae. tauschii</i>	D	<i>Psyl-D1b</i>	USA	/
Ae46	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	/	Henan, China
Y57	<i>Ae. tauschii</i>	D	<i>Psyl-D1b</i>	Middle East	Middle East
Y59	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	/	Xinjiang, China
Y92	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	Xinjiang, China	Xinjiang, China
Y93	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	Xinjiang, China	Xinjiang, China
Y95	<i>Ae. tauschii</i>	D	<i>Psyl-D1d</i>	Xinjiang, China	Xinjiang, China
Y98	<i>Ae. tauschii</i>	D	<i>Psyl-D1c</i>	Xinjiang, China	Xinjiang, China
Y99	<i>Ae. tauschii</i>	D	<i>Psyl-D1d</i>	Xinjiang, China	Xinjiang, China
DS3	<i>T. dicoccoides</i>	AB	<i>Psyl-A1k</i>	/	/
			<i>Psyl-B1h</i>		
DS4	<i>T. dicoccoides</i>	AB	<i>Psyl-A1k</i>	USA	/
			<i>Psyl-B1a</i>		
DS6	<i>T. dicoccoides</i>	AB	<i>Psyl-A1l</i>	Germany	/
			<i>Psyl-B1g</i>		
DS7	<i>T. dicoccoides</i>	AB	<i>Psyl-A1k</i>	Germany	/
			<i>Psyl-B1h</i>		
DS8	<i>T. dicoccoides</i>	AB	<i>Psyl-A1k</i>	Germany	/
			<i>Psyl-B1i</i>		
DM26	<i>T. dicoccum</i>	AB	<i>Psyl-A1m</i>	/	Ethiopia
			<i>Psyl-B1j</i>		
DM28	<i>T. dicoccum</i>	AB	<i>Psyl-A1d</i>	Hungary	/
			<i>Psyl-B1e</i>		
DM33	<i>T. dicoccum</i>	AB	<i>Psyl-A1d</i>	/	Morocco
			<i>Psyl-B1k</i>		
DM37	<i>T. dicoccum</i>	AB	<i>Psyl-A1k</i>	/	Poland
			<i>Psyl-B1l</i>		
DM47	<i>T. dicoccum</i>	AB	<i>Psyl-A1k</i>	/	Yemen
			<i>Psyl-B1m</i>		

(Continued)

Table A1. (Continued).

Accession identifier ^a	Species	Genome	Allele	Donor ^b	Origin ^b
SP9	<i>T. spelta</i>	ABD	<i>Psy1-A1n</i> <i>Psy1-B1a</i> <i>Psy1-D1e</i>	Germany	/
Spelt167	<i>T. spelta</i>	ABD	<i>Psy1-A1k</i> <i>Psy1-B1m</i> <i>Psy1-D1e</i>	/	/
Spelt217	<i>T. spelta</i>	ABD	<i>Psy1-A1k</i> <i>Psy1-B1m</i> <i>Psy1-D1f</i>	/	/
Spelt220	<i>T. spelta</i>	ABD	<i>Psy1-A1k</i> <i>Psy1-B1m</i> <i>Psy1-D1f</i>	/	/
Chinese Spring	<i>T. aestivum</i>	ABD	<i>Psy1-A1a</i> <i>Psy1-B1a</i> <i>Psy1-D1a</i>	/	Sichuan, China
Zhongliang 88375	<i>T. aestivum</i>	ABD	<i>Psy1-D1g</i>	/	Gansu, China

^aaccession identifiers except those of common wheats were from NFCRI, Inst. of Crop Science, CAAS, China and College of Life Science, Capital Normal Univ., Beijing, China.

^bdonor and origin refer to countries or regions from where the germplasms were introduced and were originally collected, respectively; slashes denote missing records.

<i>Psy1-A1i</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCTCGCAGCAGCAGCAGCA	350
<i>Psy1-A1j</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCCAGCAGCAGCAGCAGCAGCA	350
<i>Psy1-A1k</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCTCGCAGCAACAGCAGCA	350
<i>Psy1-A1l</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCTCGCAGCAACAGCAGCA	350
<i>Psy1-A1m</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCTCGCAGCAACAGCAGCA	350
<i>Psy1-A1n</i>	TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCCTCGCAGCAACAGCAGCA	350
<i>Psy1-A1a</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1b</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1c</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1d</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1e</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1f</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1g</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1h</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1i</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1j</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1k</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1l</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1m</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1n</i>	GGCGCCGCAGCCGTGCCAGGGAGCTGGACGCGCCGCGCGGGCTCGGGGAGGCCACGCCCCGTGC	420
<i>Psy1-A1a</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1b</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1c</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1d</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1e</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1f</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1g</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1h</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1i</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	490
<i>Psy1-A1j</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	490
<i>Psy1-A1k</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1l</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1m</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1n</i>	GGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT - CGTGGATACTCTGTT	489
<i>Psy1-A1a</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1b</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1c</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1d</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1e</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1f</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1g</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1h</i>	TTTCTTGAGCCATGGTGGCA - - - - - AGCCGATGTTCCGGTGATCATGGAGCTCCTTCATTTCAT	547
<i>Psy1-A1i</i>	TTTCTTGAGCCATGGTGGCA - - - - - AGCCGATGTTCCGGTGATCATGGAGCTCCTTCATTTCAT	548
<i>Psy1-A1j</i>	TTTCTTGAGCCATGGTGGCA - - - - - AGCCGATGTTCCGGTGATCATGGAGCTCCTTCATTTCAT	548
<i>Psy1-A1k</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1l</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1m</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1n</i>	TTTCTTGAGCCATGGTGGCAGGCTGCGTGCCAAGCCGGTGTTCGGTGATCATGGAGCTCACTCGTTTCAT	559
<i>Psy1-A1a</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1b</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1c</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1d</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1e</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1f</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1g</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1h</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	617
<i>Psy1-A1i</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	618
<i>Psy1-A1j</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	618
<i>Psy1-A1k</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1l</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1m</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1n</i>	GTCTGGTTCGTGCATGGCAGGGACCTTGCTGATGACCGAGGAGCGGCGCGCCATATGGGCCATCTACG	629
<i>Psy1-A1a</i>	-----GT-----AATCTGAAAATTACCATGCCTGGTTT	658
<i>Psy1-A1b</i>	GTAATCTGAAAATTACCGCCATATGGGCCATCTACGGT - - - AATCTGAAAATTACCATGCCTGGTTT	695
<i>Psy1-A1c</i>	-----GT-----AATCTGAAAATTACCATGCCTGGTTT	658
<i>Psy1-A1d</i>	-----GT-----AATCTGAAAATTACCATGCCTGGTTT	658

Fig. A1. (Continued).

<i>Psy1-A1e</i>	GTAATCTGAAAATTCGCCGCATATGGGCCATCTACGGT --- AATCTGAAAATTCACCATGCCTGGTTT	695
<i>Psy1-A1f</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1g</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1h</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	646
<i>Psy1-A1i</i>	-----GTAATCAATCTGAAA CCTCACCAAGCCTGGCTT	651
<i>Psy1-A1j</i>	-----GTAATCAATCTGAAA CCTCACCAAGCCTGGCTT	651
<i>Psy1-A1k</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1l</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1m</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1n</i>	-----GT --- AATCTGAAAATTCACCATGCCTGGTTT	658
<i>Psy1-A1a</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1b</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	765
<i>Psy1-A1c</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1d</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1e</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	765
<i>Psy1-A1f</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1g</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1h</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	716
<i>Psy1-A1i</i>	GGACCCTCCATTGTTGCTCCCTGTTGTAGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	721
<i>Psy1-A1j</i>	GGACCCTCCATTGTTGCTCCCTGTTGTAGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	721
<i>Psy1-A1k</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1l</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1m</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1n</i>	GGACCCTCCATTGTTGCTCCCTGTTGTGGTATCAGTATGTGTACACAGTGTAGTTAGTGTGCAGTAAT	728
<i>Psy1-A1a</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1b</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	835
<i>Psy1-A1c</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1d</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1e</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	835
<i>Psy1-A1f</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1g</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1h</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	786
<i>Psy1-A1i</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	791
<i>Psy1-A1j</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	791
<i>Psy1-A1k</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1l</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1m</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1n</i>	GTGACTGAAAATTCAGCTAGTTTCATTCTCACTTCAGACCGTCAGAAAGGGCATGCCACATTTTGCATC	798
<i>Psy1-A1a</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1b</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	905
<i>Psy1-A1c</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1d</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1e</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	905
<i>Psy1-A1f</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1g</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1h</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	856
<i>Psy1-A1i</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	861
<i>Psy1-A1j</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	861
<i>Psy1-A1k</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1l</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1m</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1n</i>	AGTTAAATTGCTACATATTGTATTTAACAGCAACTTGCAAGAATCTTCAACACTCCCCAAGAAAATTGGC	868
<i>Psy1-A1a</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1b</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	975
<i>Psy1-A1c</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1d</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1e</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	975
<i>Psy1-A1f</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1g</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1h</i>	CACCTTTAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	926
<i>Psy1-A1i</i>	CACCTTTAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	931
<i>Psy1-A1j</i>	CACCTTTAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	931
<i>Psy1-A1k</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1l</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1m</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938
<i>Psy1-A1n</i>	CACCTTTAAAGTTAATGGTGTGAAC TAGTTCTGGATGCGAATAATGGCAAATAGAAAACATTGCTGAAC TTG	938

Fig. A1. (Continued).

<i>Psy1-A1a</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1b</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1045
<i>Psy1-A1c</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1d</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1e</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1045
<i>Psy1-A1f</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1g</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1h</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	996
<i>Psy1-A1i</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1001
<i>Psy1-A1j</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1001
<i>Psy1-A1k</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1l</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1m</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1n</i>	<u>CATGCTATGTGTTTACAGATACTCCTATATACGTAGTATAGTCAGTGAAGAATAAAGGGTTCGTATAACA</u>	1008
<i>Psy1-A1a</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1b</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1115
<i>Psy1-A1c</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1d</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1e</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1115
<i>Psy1-A1f</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1g</i>	<u>CTTTTT-ATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1077
<i>Psy1-A1h</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1066
<i>Psy1-A1i</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1071
<i>Psy1-A1j</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1071
<i>Psy1-A1k</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1l</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1m</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1n</i>	<u>CTTTTTTATATGCCATTATGTGTGGAAGCATCAAATTAGGCTTTTTGTTGGCTAAATGGCTTCAATAGGA</u>	1078
<i>Psy1-A1a</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1b</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1185
<i>Psy1-A1c</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1d</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1e</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1185
<i>Psy1-A1f</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGAGTAC</u>	1148
<i>Psy1-A1g</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGAGTAC</u>	1147
<i>Psy1-A1h</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGAGTAC</u>	1136
<i>Psy1-A1i</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCC-AAAGGACATGAATCTGAGAGTAC</u>	1140
<i>Psy1-A1j</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGAGTAC</u>	1141
<i>Psy1-A1k</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1l</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTAAAGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1m</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1n</i>	<u>TCAAAGTACACGAGAAAAGGTTGCAAGAACATATTCCTCAAATTGCCTGGGGACATGAATCTGAGGGTAC</u>	1148
<i>Psy1-A1a</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1b</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1254
<i>Psy1-A1c</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1d</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1e</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1254
<i>Psy1-A1f</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1g</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1216
<i>Psy1-A1h</i>	<u>GTTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1205
<i>Psy1-A1i</i>	<u>GTTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1210
<i>Psy1-A1j</i>	<u>GTTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1210
<i>Psy1-A1k</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1l</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1m</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1n</i>	<u>CGTCAGTTCCTAAATGAGATATACTCTAGGCATCAATCACTTTCAGAATCTGATGTATAGCATCATT-GTT</u>	1217
<i>Psy1-A1a</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1b</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1324
<i>Psy1-A1c</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1d</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1e</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1324
<i>Psy1-A1f</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1g</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1286
<i>Psy1-A1h</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1275
<i>Psy1-A1i</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1280
<i>Psy1-A1j</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1280
<i>Psy1-A1k</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287

Fig. A1. (Continued).

<i>Psy1-A1l</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1m</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1n</i>	<u>CAGTATGGTGCAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCACGCCGAGGCGCT</u>	1287
<i>Psy1-A1a</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1b</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1394
<i>Psy1-A1c</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1d</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1e</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1394
<i>Psy1-A1f</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1g</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1356
<i>Psy1-A1h</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1345
<i>Psy1-A1i</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1350
<i>Psy1-A1j</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1350
<i>Psy1-A1k</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1l</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1m</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1n</i>	<u>GGACCCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCTCGACGCCGCGCTC</u>	1357
<i>Psy1-A1a</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1b</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1464
<i>Psy1-A1c</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1d</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1e</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1464
<i>Psy1-A1f</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1g</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1426
<i>Psy1-A1h</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1414
<i>Psy1-A1i</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1420
<i>Psy1-A1j</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1419
<i>Psy1-A1k</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1l</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1m</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1n</i>	<u>TCTGACACCATCACC AAGTTC CCCCATAGATATT CAGGTATCAGCTTAGCCGGTGCATAAATTGTT CAGTCC</u>	1427
<i>Psy1-A1a</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1b</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1534
<i>Psy1-A1c</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1d</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1e</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1534
<i>Psy1-A1f</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1g</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1496
<i>Psy1-A1h</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1483
<i>Psy1-A1i</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1489
<i>Psy1-A1j</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1488
<i>Psy1-A1k</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1l</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1m</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1n</i>	<u>ACATTGTATGATTCTGGTAGAACAGAGTGGTGGTGGATATTC CCTGTG CAGCATCAAATGCCCCTAGACC</u>	1497
<i>Psy1-A1a</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1b</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1581
<i>Psy1-A1c</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1d</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1e</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1581
<i>Psy1-A1f</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1g</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1543
<i>Psy1-A1h</i>	<u>TCACAACTCTCAGTGC AAGATGACTAGCTTAGGCCTTCTAAGTTGACCCAGAAAGTCGATGATTG-GTCAAAA</u>	1553
<i>Psy1-A1i</i>	<u>TCACAACTCTCAGTGC AAGATGACTAGCTTAGGCCTTCTAAGTTGACCCAGAAAGTCGATGATTG-GTCAAAA</u>	1559
<i>Psy1-A1j</i>	<u>TCACAACTCTCAGTGC AAGATGACTAGCTTAGGCCTTCTAAGTTGACCCAGAAAGTCGATGATTG-GTCAAAA</u>	1558
<i>Psy1-A1k</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1l</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1m</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1n</i>	<u>TCACAACTCTCAGTGC AAGATGAC-----CGGAAAGTCGATGATTG-GTCAAAA</u>	1544
<i>Psy1-A1a</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1614
<i>Psy1-A1b</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1651
<i>Psy1-A1c</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1614
<i>Psy1-A1d</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1614
<i>Psy1-A1e</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1651
<i>Psy1-A1f</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1614
<i>Psy1-A1g</i>	<u>TTGTTTCGTTTGTGCGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG</u>	1613

Fig. A1. (Continued).

<i>Psy1-A1h</i>	TTATTTTCGTTTGTTCGGCCTTTATAGTCTCTGATGCTGTAATTGAGCGTGTATGAACTTTTCACACATTG	1623
<i>Psy1-A1i</i>	TTATTTTCGTTTGTTCGGCCTTTATAGTCTCTGATGCTGTAATTGAGCGTGTATGAACTTTTCACACATTG	1629
<i>Psy1-A1j</i>	TTATTTTCGTTTGTTCGGCCTTTATAGTCTCTGATGCTGTAATTGAGCGTGTATGAACTTTTCACACATTG	1628
<i>Psy1-A1k</i>	TTGTTTCGTTTGTTCGGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG	1614
<i>Psy1-A1l</i>	TTGTTTCGTTTGTTCGGCCTTTGTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG	1614
<i>Psy1-A1m</i>	TTGTTTCGTTTGTTCGGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG	1614
<i>Psy1-A1n</i>	TTGTTTCGTTTGTTCGGCCTTTGGTTAGTCTCTGATGCTGTTGTTGAGCCGTATGAACTTTTCACACATTG	1614
<i>Psy1-A1a</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1b</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1721
<i>Psy1-A1c</i>	TGCTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1d</i>	TGCTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1e</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1721
<i>Psy1-A1f</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1g</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1683
<i>Psy1-A1h</i>	TAGTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1692
<i>Psy1-A1i</i>	TAGTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1698
<i>Psy1-A1j</i>	TAGTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1697
<i>Psy1-A1k</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1l</i>	TGCTGGGGGCTTATCCAGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1m</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1n</i>	TAGTGGGGGCTTATCCTGTTGACTAGACGCTATAGTGGGAATCGTCTGGTCAAAGATATGTTTAATCAAA	1684
<i>Psy1-A1a</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1b</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1791
<i>Psy1-A1c</i>	GTGGGGAAATTATAGGAGAACTTTTCAGCAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1d</i>	GTGGGGAAATTATAGGAGAACTTTTCAGCAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1e</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1791
<i>Psy1-A1f</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1g</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1753
<i>Psy1-A1h</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1730
<i>Psy1-A1i</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1736
<i>Psy1-A1j</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1735
<i>Psy1-A1k</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1l</i>	GTGGGGAAATTATAGGAGAACTTTTCAGCAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1m</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1n</i>	GTGGGGAAATTATAGGAGAACTTTTCAGTAAGTATTATTTCCCGAGCATACCTAGAACAAACAGGAACTT	1754
<i>Psy1-A1a</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1b</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1861
<i>Psy1-A1c</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1d</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1e</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1861
<i>Psy1-A1f</i>	GGAA-TGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1823
<i>Psy1-A1g</i>	GGAA-TGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1822
<i>Psy1-A1h</i>	-----	1730
<i>Psy1-A1i</i>	-----	1736
<i>Psy1-A1j</i>	-----	1735
<i>Psy1-A1k</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1l</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1m</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1n</i>	GGAAATGATGTAGAAGGAGAAATGAAATCAGGGAGAGTCCAAGTAACTCCAGACCTGAATTATACATCAT	1824
<i>Psy1-A1a</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1b</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1931
<i>Psy1-A1c</i>	GAAATGTACTTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1d</i>	GAAATGTACTTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1e</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1931
<i>Psy1-A1f</i>	GAAATGTACTTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1893
<i>Psy1-A1g</i>	GAAATGTACTTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1892
<i>Psy1-A1h</i>	-----	1730
<i>Psy1-A1i</i>	-----	1736
<i>Psy1-A1j</i>	-----	1735
<i>Psy1-A1k</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1l</i>	GAAATGTACTTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1m</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1n</i>	GAAATGTACCTGGTCACTCTTTTACTGGGCTTTGTGGTTTTTCGGCCTAATTTCCCATATAAACCGCG	1894
<i>Psy1-A1a</i>	TTACTCTCTATTTCTTTTCTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAATAAAAAA	1964
<i>Psy1-A1b</i>	TTACTCTCTATTTCTTTTCTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAATAAAAAA	2001
<i>Psy1-A1c</i>	TTACTCTCTATTTCTTTTCTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAATAAAAAA	1964

Fig. A1. (Continued).

<i>Psy1-A1d</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	1964
<i>Psy1-A1e</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	2001
<i>Psy1-A1f</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAGA</u>	1963
<i>Psy1-A1g</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAGA</u>	1962
<i>Psy1-A1h</i>	-----GGCAGAGCTCCTGACTTGCATTGTAAAAAAA	1762
<i>Psy1-A1i</i>	-----GGCAGAGCTCCTGACTTGCATTGTAAAAAGA	1768
<i>Psy1-A1j</i>	-----GGCAGAGCTCCTGACTTGCATTGTAAAAAAA	1767
<i>Psy1-A1k</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	1964
<i>Psy1-A1l</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	1964
<i>Psy1-A1m</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	1964
<i>Psy1-A1n</i>	<u>TTACTCTCTATTTCTTTCTTTTCTCATAGTGAAATCGGCAGTGATCCTGCCTTGCATTGTAAAAAAA</u>	1964
<i>Psy1-A1a</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1b</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2068
<i>Psy1-A1c</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1d</i>	A--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2032
<i>Psy1-A1e</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2068
<i>Psy1-A1f</i>	AAGGTCTTGGTCGTTCTTAGCACAACTACTTATGAACTATATTATTTGATTTTCTAAA-TGACCAATTACT	2032
<i>Psy1-A1g</i>	AAGGTCTTGGTCGTTCTTAGCACAACTACTTATGAACTATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1h</i>	AAGGTCTTG-----CAG-AGTACTACTTATGAACTATATTATTTGATTTTCTAAAATGACCAATTCTT	1823
<i>Psy1-A1i</i>	--GGTCTTG-----CAG-AGTACTACTTATGAACTATATTATTTGATTTTCTAAAATGACCAATTACT	1827
<i>Psy1-A1j</i>	A--GGTCTTG-----CAG-AGTACTACTTATGAACTATATTATTTGATTTTCTAAAATGACCAATTACT	1827
<i>Psy1-A1k</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1l</i>	A--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2032
<i>Psy1-A1m</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1n</i>	--GGTCTTGGTCGTTCTTAGCACTACTACTTATGAAAAATATTATTTGATTTTCTAAA-TGACCAATTACT	2031
<i>Psy1-A1a</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1b</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2138
<i>Psy1-A1c</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1d</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2102
<i>Psy1-A1e</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2138
<i>Psy1-A1f</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2102
<i>Psy1-A1g</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1h</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAAGCAGATACAA</u>	1893
<i>Psy1-A1i</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAAGCAGATACAA</u>	1897
<i>Psy1-A1j</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAAGCAGATACAA</u>	1897
<i>Psy1-A1k</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1l</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2102
<i>Psy1-A1m</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1n</i>	<u>TTTACATATGCCAGCCCTTCAAGGACATGATCGACGGATGCGGACGGACCTCAAGAAGGCGAGGTACAA</u>	2101
<i>Psy1-A1a</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1b</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2208
<i>Psy1-A1c</i>	GAACTTTGAGGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1d</i>	GAACTTTGAGGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2172
<i>Psy1-A1e</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2208
<i>Psy1-A1f</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2172
<i>Psy1-A1g</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1h</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	1963
<i>Psy1-A1i</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	1967
<i>Psy1-A1j</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	1967
<i>Psy1-A1k</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1l</i>	GAACTTTGAGGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2172
<i>Psy1-A1m</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1n</i>	GAACTTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCCAGTG	2171
<i>Psy1-A1a</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241
<i>Psy1-A1b</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2278
<i>Psy1-A1c</i>	ATGGGCATTGCAACCAGCTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241
<i>Psy1-A1d</i>	ATGGGCATTGCAACCAGCTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2242
<i>Psy1-A1e</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2278
<i>Psy1-A1f</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2242
<i>Psy1-A1g</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241
<i>Psy1-A1h</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2033
<i>Psy1-A1i</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2037
<i>Psy1-A1j</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2037
<i>Psy1-A1k</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241
<i>Psy1-A1l</i>	ATGGGCATTGCAACCAGCTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2242
<i>Psy1-A1m</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241
<i>Psy1-A1n</i>	ATGGGCATTGCGCCCGACTCCAAGGCGACAGCTGAGAGCGTCTATGGCGCCGCTCTGGCTCTCGGGCTCG	2241

Fig. A1. (Continued).

<i>Psy1-A1a</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1b</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2348
<i>Psy1-A1c</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1d</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2312
<i>Psy1-A1e</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2348
<i>Psy1-A1f</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2312
<i>Psy1-A1g</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1h</i>	CGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCCACCCACTGATTACAATAAAAATG	2103
<i>Psy1-A1i</i>	CGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCCACCCACTGATTACAATAAAAATG	2107
<i>Psy1-A1j</i>	CGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCCACCCACTGATTACAATAAAAATG	2107
<i>Psy1-A1k</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1l</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2312
<i>Psy1-A1m</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1n</i>	CGAACCAGCTCACCAACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCACTCACTACCAATACAATG	2311
<i>Psy1-A1a</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2380
<i>Psy1-A1b</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2417
<i>Psy1-A1c</i>	CAATGTTTTCCCTTG-TAAAATCAT-----	2336
<i>Psy1-A1d</i>	CAATGTTTTCCCTTG-TAAAATCAT-----	2337
<i>Psy1-A1e</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2417
<i>Psy1-A1f</i>	CAATGTTTTCCCTTG-TAAAATCAT-----	2337
<i>Psy1-A1g</i>	CAATGTTTTCCCTTG-TAAAATCAT-----	2336
<i>Psy1-A1h</i>	CAACCGTTTTCCCTTCCCTAAGAACAGT-----	2130
<i>Psy1-A1i</i>	CAACCGTTTTCCCTTCCCTAAGAACAGT-----	2134
<i>Psy1-A1j</i>	CAACCGTTTTCCCTTCCCTAAGAACAGT-----	2134
<i>Psy1-A1k</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2380
<i>Psy1-A1l</i>	CAATGTTTTCCCTTG-TAAAATCAT-----	2337
<i>Psy1-A1m</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2380
<i>Psy1-A1n</i>	CAATAGTTTTCCCTTG-TAAAATCATTTTTTTTAGAAAAGGAGCATGACCCCGGCTCTGCATCTGAGA	2380
<i>Psy1-A1a</i>	GATGCATACGGCCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2450
<i>Psy1-A1b</i>	GATGCATACGGCCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2487
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	GATGCATACGGCCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2487
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	GATGCATACGGCCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2450
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	GATGCATACCGAACCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2450
<i>Psy1-A1n</i>	GATGCATACGGCCACTTTATTGATTATTCTCAGGACCTTACAAGTATTACAACAATGAGCCTGAATCCA	2450
<i>Psy1-A1a</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2520
<i>Psy1-A1b</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2557
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2557
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2520
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2520
<i>Psy1-A1n</i>	CCATCTTGACAACACATGCCGCTACTCCTATCCAAAATGATGAAGGGTGCTAGCTGGGCCACTACCCAA	2520
<i>Psy1-A1a</i>	ACCACCTACCAAAGCCTAACATCAAAAAGCCGAAACCGAAACATATTCGGAAAGCCCCAGCCGAGCCACAT	2590
<i>Psy1-A1b</i>	ACCACCTACCAAAGCCTAACATCAAAAAGCCGAAACCGAAACATATTCGGAAAGCCCCAGCCGAGCCACAT	2627
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	ACCACCTACCAAAGCCTAACATCAAAAAGCCGAAACCGAAACATATTCGGAAAGCCCCAGCCGAGCCACAT	2627
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134

Fig. A1. (Continued).

<i>Psy1-A1k</i>	ACCACTACCAAAGCCTAACATCAAAGCCGGAAACCGAAACATATTCGGAAGCCCCAGCCGAGCCACAT	2590
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	ACCACTACCAAAGCCTAACATCAAAGCCGGAAACCGAAACATATTCGGAAGCCCCAGCCGAGCCACAT	2590
<i>Psy1-A1n</i>	ACCACTACCAAAGCCTAACATCAAAGCCGGAAACCGAAACATATTCGGAAGCCCCAGCCGAGCCACAT	2590
<i>Psy1-A1a</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2660
<i>Psy1-A1b</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2697
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2697
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2660
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2660
<i>Psy1-A1n</i>	ACCGGGTCTGGGCACAATCCGGTCAGACGCACTCGTGTGTGTCGCGCCCATCTTCCACAGGTCCGTCTT	2660
<i>Psy1-A1a</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAACAGCAA	2730
<i>Psy1-A1b</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAGACAGCAA	2767
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAGACAGCAA	2767
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAGACAGCAA	2730
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAGACAGCAA	2730
<i>Psy1-A1n</i>	CAGATCATATTGAGGCTTCTACCTTGTCTGGCCACTCTACCATCGACGTCACCATGACGCCAAGACAGCAA	2730
<i>Psy1-A1a</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2800
<i>Psy1-A1b</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2837
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2837
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2800
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2800
<i>Psy1-A1n</i>	CCTCCTCCTGCGGAGTCCATCTCCGTGCATCGGGCGGCGAGCCTCCGACGCGCCATGCCGCGATCTTC	2800
<i>Psy1-A1a</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2870
<i>Psy1-A1b</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2907
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2907
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2870
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2870
<i>Psy1-A1n</i>	GCCGCCATCAATGAGTGAGATGAAGTACCCTCCACCACGGCATGTACAAGGTGACGAAGGGCGAGGTCC	2870
<i>Psy1-A1a</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACACTGCCCGGAGTTGCGACGCAGTAGA	2940
<i>Psy1-A1b</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACACTGCCCGGAGTTGCGACGCAGTAGA	2977
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACACTGCCCGGAGTTGCGACGCAGTAGA	2977
<i>Psy1-A1f</i>	-----	2337

Fig. A1. (Continued).

<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACTGCCCGGAGTTGCGACGCAGTAGA	2940
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACTGCCCGGAGTTGCGACGCAGTAGA	2940
<i>Psy1-A1n</i>	CCATCGGAGACACGGGCGGAAGAGAAGCACCGCAGCCCCGAGACTGCCCGGAGTTGCGACGCAGTAGA	2940
<i>Psy1-A1a</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3010
<i>Psy1-A1b</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3047
<i>Psy1-A1c</i>	-----	2336
<i>Psy1-A1d</i>	-----	2337
<i>Psy1-A1e</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3047
<i>Psy1-A1f</i>	-----	2337
<i>Psy1-A1g</i>	-----	2336
<i>Psy1-A1h</i>	-----	2130
<i>Psy1-A1i</i>	-----	2134
<i>Psy1-A1j</i>	-----	2134
<i>Psy1-A1k</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3010
<i>Psy1-A1l</i>	-----	2337
<i>Psy1-A1m</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3010
<i>Psy1-A1n</i>	TCAGGCGGGCCGTACCAGGAACCAGACAAGCACGCCATGCACCCAGCATCCCCATCCCCATGCCCATC	3010
<i>Psy1-A1a</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3079
<i>Psy1-A1b</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3116
<i>Psy1-A1c</i>	-----GATATGGACATTTTGAGATAGCACTATCCTGAATTTTCTGGTGTTCGAATAAATT-	2391
<i>Psy1-A1d</i>	-----GATATGGACATTTTGAGATAGCACTATCCTGAATTTTCTGGTGTTCGAATAAATT-	2392
<i>Psy1-A1e</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3116
<i>Psy1-A1f</i>	-----GATATGGACATTTTGAGATAGCACTATCCTGAATTTTCTGGTGTTCGAATAAATT-	2392
<i>Psy1-A1g</i>	-----GATATGGACATTTTGAGATAGCACTATCCTGAATTTTCTGGTGTTCGAATAAATT-	2391
<i>Psy1-A1h</i>	-----CATGATATGAGTATT--AAAATAGCACTGTTTGAATTTTGTG-TGTTTGCATAATTTT	2186
<i>Psy1-A1i</i>	-----CATGATATGAGTATT--AAAATAGCACTGTTTGAATTTTGTG-TGTTTGCATAATTTT	2190
<i>Psy1-A1j</i>	-----CATGATATGAGTATT--AAAATAGCACTGTTTGAATTTTGTG-TGTTTGCATAATTTT	2190
<i>Psy1-A1k</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3079
<i>Psy1-A1l</i>	-----GATATGGACATTTTGAGATAGCACTATCCTGAATTTTCTGGTGTTCGAATAAATT-	2392
<i>Psy1-A1m</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3079
<i>Psy1-A1n</i>	CCTTGTAAAATCATGATATGGACATTTTCGAGATAGCACTATCCTGAATTTTTTGGTGTTCGAATAAATT-	3079
<i>Psy1-A1a</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3147
<i>Psy1-A1b</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3184
<i>Psy1-A1c</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2459
<i>Psy1-A1d</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2460
<i>Psy1-A1e</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3184
<i>Psy1-A1f</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2460
<i>Psy1-A1g</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2459
<i>Psy1-A1h</i>	TTTTCCAGTGCAGGAAGAGGAAGGATATATCTACCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2256
<i>Psy1-A1i</i>	TTTTCCAGTGCAGGAAGAGGAAGGATATATCTACCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2260
<i>Psy1-A1j</i>	TTTTCCAGTGCAGGAAGAGGAAGGATATATCTACCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2260
<i>Psy1-A1k</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3147
<i>Psy1-A1l</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	2460
<i>Psy1-A1m</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3147
<i>Psy1-A1n</i>	--TCCCAGTGAAGAAGAGGAAGGATATATTTGCCGCAAGACGAGCTTGCGGAGGCAGGGCTCTCCGATG	3147
<i>Psy1-A1a</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3217
<i>Psy1-A1b</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3254
<i>Psy1-A1c</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2529
<i>Psy1-A1d</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2530
<i>Psy1-A1e</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3254
<i>Psy1-A1f</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2530
<i>Psy1-A1g</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2529
<i>Psy1-A1h</i>	AAGACATCTTCAAAGGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2326
<i>Psy1-A1i</i>	AAGACATCTTCAAAGGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2330
<i>Psy1-A1j</i>	AAGACATCTTCAAAGGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2330
<i>Psy1-A1k</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3217
<i>Psy1-A1l</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	2530
<i>Psy1-A1m</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3217
<i>Psy1-A1n</i>	AAGACATCTTCAAAGGAGTCGTACCCGACAAGTGGAGAAAATTCATGAAGAGGCAGATCAAGAGGGCGAG	3217
<i>Psy1-A1a</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGTAAGTGCC	3287
<i>Psy1-A1b</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGTAAGTGCC	3324

Fig. A1. (Continued).

<i>Psy1-A1c</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2599
<i>Psy1-A1d</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2600
<i>Psy1-A1e</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	3324
<i>Psy1-A1f</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2600
<i>Psy1-A1g</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2599
<i>Psy1-A1h</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2396
<i>Psy1-A1i</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2400
<i>Psy1-A1j</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2400
<i>Psy1-A1k</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	3287
<i>Psy1-A1l</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	2600
<i>Psy1-A1m</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	3287
<i>Psy1-A1n</i>	GATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCC	3287
<i>Psy1-A1a</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3354
<i>Psy1-A1b</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3391
<i>Psy1-A1c</i>	CTAAAGCCACGCTTGAATGTGAAACAAAACCTACATATTGATCTCTCATCATTGTTAATTATCCGTAGCA	2669
<i>Psy1-A1d</i>	CTAAAGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCTCATCATTGTTAATTATCCGTAGCA	2670
<i>Psy1-A1e</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3391
<i>Psy1-A1f</i>	CTAAAGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCTCATCATTGTTAATTATCAGTAGCA	2670
<i>Psy1-A1g</i>	CTAAAGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCTCATCATTGTTAATTATCAGTAGCA	2669
<i>Psy1-A1h</i>	CTAATAACCACTTGTATAACCAAAAAGAACTACATATAGAGTTCTCATCGATGTTAATTATAGTAAACA	2466
<i>Psy1-A1i</i>	CTAATAACCACTTGTATAACCAAAAAGAACTACATATAGAGTTCTCATCGATGTTAATTATAGTAAACA	2470
<i>Psy1-A1j</i>	CTAATAACCACTTGTATAACCAAAAAGAACTACATATAGAGTTCTCATCGATGTTAATTATAGTAAACA	2470
<i>Psy1-A1k</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3354
<i>Psy1-A1l</i>	CTAAAGCCACGCTTGAATGTGAAACAAAACCTACATATTGATCTCTCATCATTGTTAATTATCCGTAGCA	2670
<i>Psy1-A1m</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3354
<i>Psy1-A1n</i>	C--AGCCACGACTTGAATGTGAAACAAAACCTACATATTGATCTCACATCATTGTTAATTATCAGTAGCA	3354
<i>Psy1-A1a</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3399
<i>Psy1-A1b</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3436
<i>Psy1-A1c</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	2714
<i>Psy1-A1d</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	2715
<i>Psy1-A1e</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3436
<i>Psy1-A1f</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	2715
<i>Psy1-A1g</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	2714
<i>Psy1-A1h</i>	ACGAAGGTGCATGTGTAGTTCAAAGACCCGCAAAAAAAAATGTGTCAAGGGGGTTCGCGCCCTCACC	2536
<i>Psy1-A1i</i>	ACGAAGGTGCATGTGTAGTTCAAAGACCCGCAAAAAAAAATGTGTCAAGGGGGTTCGCGCCCTCACC	2538
<i>Psy1-A1j</i>	ACGAAGGTGCATGTGTAGTTCAAAGACCCGCAAAAAAAAATGTGTCAAGGGGGTTCGCGCCCTCACC	2539
<i>Psy1-A1k</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3399
<i>Psy1-A1l</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	2715
<i>Psy1-A1m</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3399
<i>Psy1-A1n</i>	AAAATGATGCTACGTGTAGTTCGTG-----GGGGTTCGCTCCCCCACC	3399
<i>Psy1-A1a</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3457
<i>Psy1-A1b</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3494
<i>Psy1-A1c</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2772
<i>Psy1-A1d</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2773
<i>Psy1-A1e</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3494
<i>Psy1-A1f</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2774
<i>Psy1-A1g</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2774
<i>Psy1-A1h</i>	-TTGGTATAATCATGAAAGAAAAATA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2604
<i>Psy1-A1i</i>	-TTGGTATAATCATGAAAGAAAAATA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2606
<i>Psy1-A1j</i>	-TTGGTATAATCATGAAAGAAAAATA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2607
<i>Psy1-A1k</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3457
<i>Psy1-A1l</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	2773
<i>Psy1-A1m</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3457
<i>Psy1-A1n</i>	CTTGGTATAATAATCATTGAAAAAAA--TTAGGGGCTCAAATGGAAGATAAATATGGTTTT-----	3457
<i>Psy1-A1a</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	3525
<i>Psy1-A1b</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	3562
<i>Psy1-A1c</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2840
<i>Psy1-A1d</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2841
<i>Psy1-A1e</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	3562
<i>Psy1-A1f</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2842
<i>Psy1-A1g</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2842
<i>Psy1-A1h</i>	TCGTTTTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2674
<i>Psy1-A1i</i>	TCGTTTTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2676
<i>Psy1-A1j</i>	TCGTTTTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2677
<i>Psy1-A1k</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	3525
<i>Psy1-A1l</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	2841
<i>Psy1-A1m</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCCGCAGATCCTTGACGAGATCGAA	3525

Fig. A1. (Continued).

<i>Psy1-A1n</i>	--GCATTGCATTGCAATTGCAGGTTTGGGCCTCTCTGTTGTTGTACCGGCAGATCCTTGACGAGATCGAA	3525
<i>Psy1-A1a</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3595
<i>Psy1-A1b</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3632
<i>Psy1-A1c</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2910
<i>Psy1-A1d</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2911
<i>Psy1-A1e</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3632
<i>Psy1-A1f</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2912
<i>Psy1-A1g</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2912
<i>Psy1-A1h</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2744
<i>Psy1-A1i</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2746
<i>Psy1-A1j</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2747
<i>Psy1-A1k</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3595
<i>Psy1-A1l</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	2911
<i>Psy1-A1m</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3595
<i>Psy1-A1n</i>	GCGAATGACTACAACAACCTTCACCAAGAGGGCCTATGTTGGGAAGGCGAAAAAGGTGCTTGCCTCCCTG	3595
<i>Psy1-A1a</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3651
<i>Psy1-A1b</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3688
<i>Psy1-A1c</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2966
<i>Psy1-A1d</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2967
<i>Psy1-A1e</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3688
<i>Psy1-A1f</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2968
<i>Psy1-A1g</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2968
<i>Psy1-A1h</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2800
<i>Psy1-A1i</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2802
<i>Psy1-A1j</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2803
<i>Psy1-A1k</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3651
<i>Psy1-A1l</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	2967
<i>Psy1-A1m</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3651
<i>Psy1-A1n</i>	TCGCGTACGGGAGATCGCTGCTCTTACCGTATTCCTGAGAAATAACCAGACCTAG	3651

Fig. A1. (Continued).

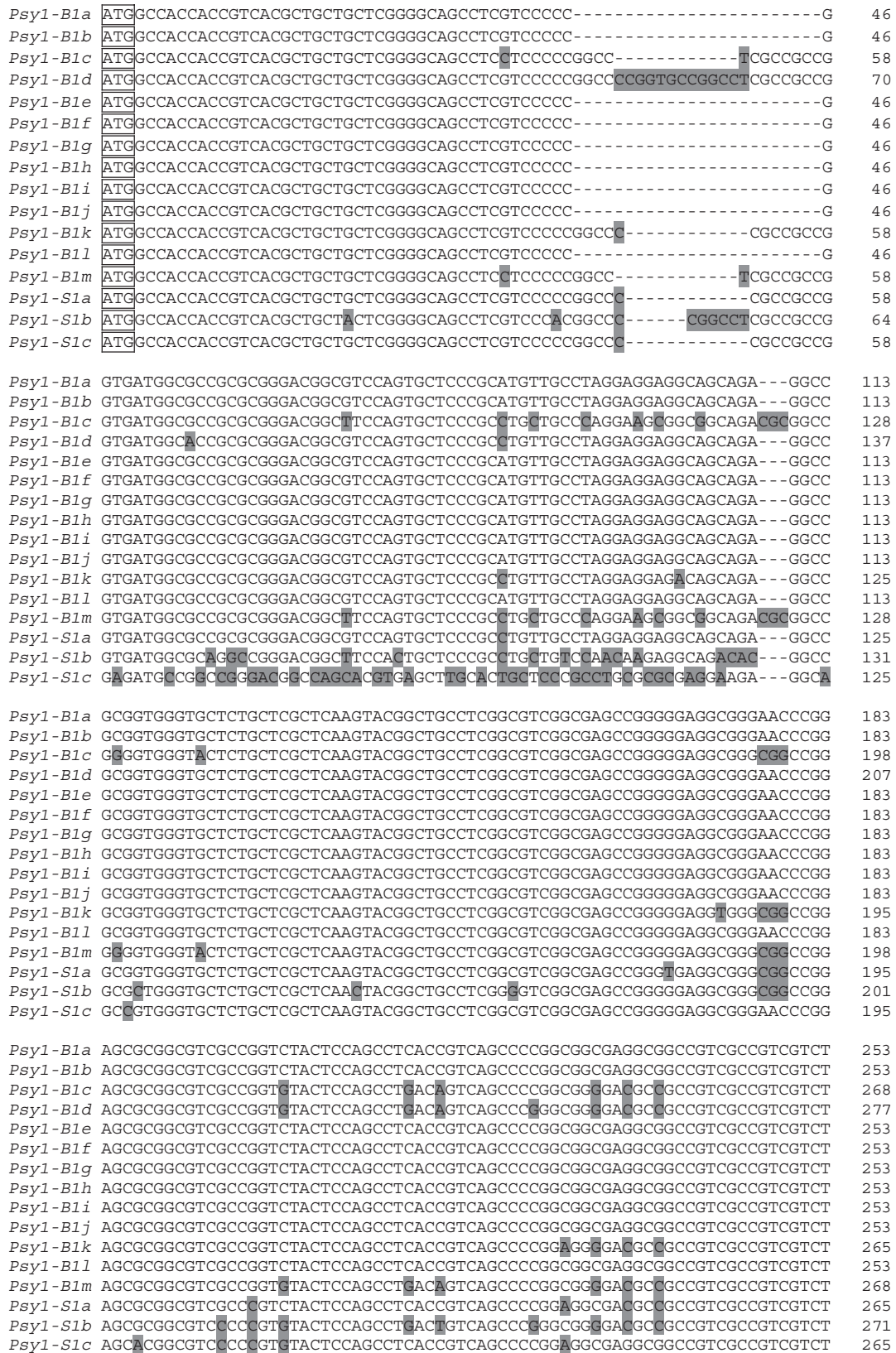


Fig. A2. Alignment of the alleles at Psy1-B1/Psy1-S1 locus. The Stowaway element sequences are in italic.

<i>Psy1-B1a</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1b</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1c</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	338
<i>Psy1-B1d</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	347
<i>Psy1-B1e</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1f</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1g</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1h</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1i</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1j</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1k</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	335
<i>Psy1-B1l</i>	CCTCGGAGCAGAAGGTGTACGACGTGGTGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	323
<i>Psy1-B1m</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	338
<i>Psy1-S1a</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	335
<i>Psy1-S1b</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	341
<i>Psy1-S1c</i>	CGTCGGAGCAGAAGGTGTACGACACCGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTCCGGCCACA	335
<i>Psy1-B1a</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1b</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1c</i>	GCAGCAGCTGGCGCGCCGCCCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	408
<i>Psy1-B1d</i>	GCAGCAGCAGGCGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	417
<i>Psy1-B1e</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	387
<i>Psy1-B1f</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1g</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	387
<i>Psy1-B1h</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1i</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1j</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1k</i>	GCAGCAGCAGGCGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	405
<i>Psy1-B1l</i>	GCAG-----GCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGTGGGCTCGGGAAGGCC	387
<i>Psy1-B1m</i>	GCAGCAGCTGGCGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	408
<i>Psy1-S1a</i>	GCAGCAGCAGGCGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	405
<i>Psy1-S1b</i>	GCAGCAGCAGGCGCGCCGCCCGCGTAGCCAGGGAGCTGGACTCGCCGCGCGGGGCTCGGGGAGGCC	411
<i>Psy1-S1c</i>	GCAGCAGCAAGCGGCGCCGCCCGCGTAGCCAGGGAGCTGGACGCGCCGCGCGGGGCTCGGGGAGGCC	405
<i>Psy1-B1a</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1b</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1c</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT-CAT	478
<i>Psy1-B1d</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	486
<i>Psy1-B1e</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1f</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1g</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1h</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1i</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1j</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1k</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT-CAT	474
<i>Psy1-B1l</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGGTGCTCCTT-CAT	456
<i>Psy1-B1m</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT-CAT	478
<i>Psy1-S1a</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCCGCTCCTT-CAT	475
<i>Psy1-S1b</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT-CAT	480
<i>Psy1-S1c</i>	TACGCCCGCTGCGGCGAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACGCCACTCCTT-CAT	475
<i>Psy1-B1a</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1b</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1c</i>	GCATCCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCAGATGTTCTGAT	544
<i>Psy1-B1d</i>	GCATGCTTACTCTGTTTTTCTATCTTAGCCATGGTGGCAGTCTGCTGCATGCCAAGCCCATGTTCTGGT	556
<i>Psy1-B1e</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1f</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1g</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1h</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1i</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1j</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1k</i>	GCATCCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCAGATGTTCTGAT	540
<i>Psy1-B1l</i>	GCATGCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCCCATGTTCTGAT	522
<i>Psy1-B1m</i>	GCATCCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCCGCATGCCAAGCAGATGTTCTGAT	544
<i>Psy1-S1a</i>	GCATCCTTACTCTGTTTTTCT---TGAGCCATGGTGGCAGTCTGCTGCATGCCAAGCAGGTTTCTGAT	541
<i>Psy1-S1b</i>	GCATGCTTACTCTGTTTTTCTATCTTAGCCATGGTGGCAG---GCTGCATGCCAAGCCCATGTTCTGAT	547
<i>Psy1-S1c</i>	GCATCCTTACTCTGTTTTTCTATCTTAGCCATGGTGGCAG--GCTGCATGCCAAGCCCATGTTCTGAT	542
<i>Psy1-B1a</i>	GATCATGGAGCTCACCCGTTTCATGCTGGTCTGTCATGGCAGGGACCTTGCTGATGACAGAGGAGCGGC	592
<i>Psy1-B1b</i>	GATCATGGAGCTCACCCGTTTCATGCTGGTCTGTCATGGCAGGGACCTTGCTGATGACAGAGGAGCGGC	592
<i>Psy1-B1c</i>	GATCATGGAGCTCACCGTTTCATGCTGGTCTGTCATGGCAGGGACCTTGCTGATGACAGGAGCGGC	614

Fig. A2. (Continued).

<i>Psy1-B1d</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	626
<i>Psy1-B1e</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1f</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1g</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1h</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1i</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1j</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1k</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	610
<i>Psy1-B1l</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	592
<i>Psy1-B1m</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	614
<i>Psy1-S1a</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	611
<i>Psy1-S1b</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	617
<i>Psy1-S1c</i>	GATCATGGAGCTCACC	CGTTCATGTCTGGTCGTGCATGGCAGGGACCTTGCTCATGACG	GAGGAGCGGCG	612
<i>Psy1-B1a</i>	ACGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1b</i>	ACGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1c</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			684
<i>Psy1-B1d</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			692
<i>Psy1-B1e</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1f</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1g</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1h</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1i</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1j</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1k</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			680
<i>Psy1-B1l</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			662
<i>Psy1-B1m</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			684
<i>Psy1-S1a</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			681
<i>Psy1-S1b</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			682
<i>Psy1-S1c</i>	CGCGCCATATGGCCATCTACGGTAATCAATCTGAAACCTCACCATGCCTGGCTTGGACCTCCATTGT			678
<i>Psy1-B1a</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1b</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1c</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			746
<i>Psy1-B1d</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			762
<i>Psy1-B1e</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1f</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1g</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1h</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1i</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1j</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1k</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			732
<i>Psy1-B1l</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			724
<i>Psy1-B1m</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			746
<i>Psy1-S1a</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			733
<i>Psy1-S1b</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			744
<i>Psy1-S1c</i>	TGCTCCCCTGCTGTAGTATCAGTATGTGTACACAGT-----GTCAGTTAGTTTCAGTAATGTGACT			730
<i>Psy1-B1a</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1b</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1c</i>	GAA-----TTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			804
<i>Psy1-B1d</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			832
<i>Psy1-B1e</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1f</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1g</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1h</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1i</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1j</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1k</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			802
<i>Psy1-B1l</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			794
<i>Psy1-B1m</i>	GAA-----TTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			804
<i>Psy1-S1a</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			803
<i>Psy1-S1b</i>	GAAAATGGAGCTAGTTTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			814
<i>Psy1-S1c</i>	GAA-----TTCATTTTCACTTCAGATCGTCAGAAAGGGCATGCCACATTTTGCATCAGTTAA			788
<i>Psy1-B1a</i>	ATTGCTACATATTGTATTTAACAGCAACTTGCAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT			863
<i>Psy1-B1b</i>	ATTGCTACATATTGTATTTAACAGCAACTTGCAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT			863
<i>Psy1-B1c</i>	ATTGCTACATA-----TTAACAGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTT			869
<i>Psy1-B1d</i>	ATTGCTACATA-----TTAACAGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTT			897
<i>Psy1-B1e</i>	ATTGCTACATATTGTATTTAACAGCAACTTGCAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT			863
<i>Psy1-B1f</i>	ATTGCTACATATTGTATTTAACAGCAACTTGCAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT			863

Fig. A2. (Continued).

<i>Psy1-B1g</i>	<u>ATTGCTACATATTGTATTTAACAGCAACTTGAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT</u>	863
<i>Psy1-B1h</i>	<u>ATTGCTACATATTGTATTTAACAGCAACTTGAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT</u>	863
<i>Psy1-B1i</i>	<u>ATTGCTACATATTGTATTTAACAGCAACTTGAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT</u>	863
<i>Psy1-B1j</i>	<u>ATTGCTACATATTGTATTTAACAGCAACTTGAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT</u>	863
<i>Psy1-B1k</i>	<u>ATTGCTACATACTGTATTTAACAGCAACTTGAAGAATAATTTGAAACTCCCCAGAAAATCGGCCACTT</u>	872
<i>Psy1-B1l</i>	<u>ATTGCTACATATTGTATTTAACAGCAACTTGAAGAAT-CTTTGACACTCCCCAAGATTATTGGCCACTT</u>	863
<i>Psy1-B1m</i>	<u>ATTGCTCATA-----TTTAAACAGCAACTTGAAGAATAATTTGAAACTCCCCAAGAAAATCGGCCACTT</u>	869
<i>Psy1-S1a</i>	<u>ATTGCTACATACTGTATTTAACAGCAACTTGAAGAATAATTTGAAACTCCCCAAGAAAATCGGCCACTT</u>	873
<i>Psy1-S1b</i>	<u>ATTGCTACATA-----TTTAAACAGCAACTTGAAGAATAATTTGAAACTCCCCAAGAAAATCGGCCACTT</u>	879
<i>Psy1-S1c</i>	<u>ATTGCTACATACTGTATTTAACAGCAACTTGAAGAA-----TCGACACTCCCCAAGATTATTGGCCACTT</u>	854
<i>Psy1-B1a</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1b</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1c</i>	<u>TT-----CAGTTAATGGTGTGAACCTAGTTCCTGGATGCGAATCATGGCAAATAGAAAACATCGTGGAACCTG</u>	934
<i>Psy1-B1d</i>	<u>TT-----CAGTTAATGGTGTGAACCTAGTTCCTGGATGCGAATAATGGCAAATAGAACACATCGTGGAACCTG</u>	962
<i>Psy1-B1e</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1f</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1g</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1h</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1i</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1j</i>	<u>TT-----AAGTTAATAGTGTGAACCTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	937
<i>Psy1-B1k</i>	<u>TT-----AAGTTAATAGTGTGAACCTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	937
<i>Psy1-B1l</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	933
<i>Psy1-B1m</i>	<u>TT-----CAGTTAATGGTGTGAACCTAGTTCCTGGATGCGAATCATGGCAAATAGAAAACATCGTGGAACCTG</u>	934
<i>Psy1-S1a</i>	<u>TT-----CAGTTAATAGTGTGAACCTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	938
<i>Psy1-S1b</i>	<u>TT-----CAGTTAATAGTGTGAACCTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	944
<i>Psy1-S1c</i>	<u>TTGTTTTCAGTTAATGGCGTAAACTAGTTCCTGGATGCGAATAATGGCAAATAGAAAACATCGTGGAACCTG</u>	924
<i>Psy1-B1a</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1b</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1c</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCATATAACACT</u>	989
<i>Psy1-B1d</i>	<u>CATGCCATGTAT--ACGATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCACATAACACT</u>	1017
<i>Psy1-B1e</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1f</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1g</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1h</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1i</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1j</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1k</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAATGCCTCACATAACACT</u>	992
<i>Psy1-B1l</i>	<u>CATGCTATACATTTATATAGATACTCCTATATAGTATAGTCAGTGAAGAATAAAGGCCTCACATAACACT</u>	1003
<i>Psy1-B1m</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCATATAACACT</u>	989
<i>Psy1-S1a</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCATATAACACT</u>	993
<i>Psy1-S1b</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCATATAACACT</u>	999
<i>Psy1-S1c</i>	<u>CATGCCATGTAT--ACATAGACAC-----AGTTGGTGAAGAATAAAGGCCTCATATAACACT</u>	979
<i>Psy1-B1a</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1b</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1c</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1059
<i>Psy1-B1d</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1086
<i>Psy1-B1e</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1f</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1g</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1h</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1i</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1j</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1k</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTCAATGGCTCAATAGGAT</u>	1062
<i>Psy1-B1l</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1073
<i>Psy1-B1m</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1059
<i>Psy1-S1a</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1063
<i>Psy1-S1b</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1069
<i>Psy1-S1c</i>	<u>TTTTTTTATATGCCATTATGTGTGGAAGAATCAAATTAGGCTTTTTTGTGGCTAAATGGCTCAATAGGAT</u>	1049
<i>Psy1-B1a</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1b</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1c</i>	<u>CAAAGTACTCCCTCCGTAACCTAAATATAAGAGTGTTTAGAATACTAAAATAGTGATCTAAACGCTCTTAT</u>	1129
<i>Psy1-B1d</i>	<u>CAAAGTAC-----</u>	1094
<i>Psy1-B1e</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1f</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1g</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1h</i>	<u>CAAAGTAC-----</u>	1081
<i>Psy1-B1i</i>	<u>CAAAGTAC-----</u>	1081

Fig. A2. (Continued).

<i>Psy1-B1j</i>	CAAAGTAC-----	1081
<i>Psy1-B1k</i>	CAAAGTAC-----	1070
<i>Psy1-B1l</i>	CAAAGTAC-----	1081
<i>Psy1-B1m</i>	CAAAGTACTCCCTCCGTAAACTAATATAAGAGTGTTTAGAATACATAAAATAGTGATCTAAACGCTCTTTAT	1129
<i>Psy1-S1a</i>	CAAAGTAC-----	1071
<i>Psy1-S1b</i>	CAAAGTAC-----	1077
<i>Psy1-S1c</i>	CAAAGTAC-----	1057
<i>Psy1-B1a</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1b</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1c</i>	ATTAGTTTACAGAGGGAGTACATGATAAAAGTTTGCAAGAACATATTCCTCAAAATTAAGGAATGTG	1199
<i>Psy1-B1d</i>	-----ATGAGAAAAGTTTGCAAGAACAATTTCCTCA--CTACTTAAGGAATGTG	1141
<i>Psy1-B1e</i>	-----ATGAGAA-----TTCCTCA--CTACTTAAGGAATGTG	1111
<i>Psy1-B1f</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1g</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1h</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1i</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1j</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1128
<i>Psy1-B1k</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTTAAGGAATGTG	1117
<i>Psy1-B1l</i>	-----ATGAGAAAAGTTTGCAAGAACATATTCCTCA--CTACTT-----	1118
<i>Psy1-B1m</i>	ATTAGTTTACAGAGGGAGTACATGATAAAAGTTTGCAAGAACATATTCCTCAAAATTAAGGAATGTG	1199
<i>Psy1-S1a</i>	-----ATGAGAAAAGTTTGCAAGAACAATTTCCTCA--CTACTTAAGGAATGTG	1118
<i>Psy1-S1b</i>	-----ATGAGAAAAGTTTGCAAGAACAATTTCCTCA--CTACTTAAGGAATGTG	1124
<i>Psy1-S1c</i>	-----ATGAGAAAAGTTTGCAAGAACAATTTCCTCA--CTACTTAAGGAATGTG	1104
<i>Psy1-B1a</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1b</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1c</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1269
<i>Psy1-B1d</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1211
<i>Psy1-B1e</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1180
<i>Psy1-B1f</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1g</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1h</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1i</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1j</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1197
<i>Psy1-B1k</i>	AACCTGAGG-TTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1186
<i>Psy1-B1l</i>	-----CTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1176
<i>Psy1-B1m</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1269
<i>Psy1-S1a</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1188
<i>Psy1-S1b</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1194
<i>Psy1-S1c</i>	AACTGAGGGTTCTGTCAGTTCTAAATGAGATATACTCTAGGCATCGAACACTTTCAGAATCTGATGTAT	1174
<i>Psy1-B1a</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1b</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1c</i>	AGCATCATTGTTTCAGTATGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1338
<i>Psy1-B1d</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1281
<i>Psy1-B1e</i>	AGCATCATTGTTTCAGTATGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1249
<i>Psy1-B1f</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1g</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1h</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1i</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1j</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1267
<i>Psy1-B1k</i>	AGCATCATTGTCCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1256
<i>Psy1-B1l</i>	AGCATCATTGTGTCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1246
<i>Psy1-B1m</i>	AGCATCATTGTTTCAGTATGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1338
<i>Psy1-S1a</i>	AGCATCATTGTCCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1258
<i>Psy1-S1b</i>	AGCATCATTGTCCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1264
<i>Psy1-S1c</i>	AGCATCATTGTCCAGTGTGGTGCAAGGAGGACAGACGAGCTGGTGGACGGTCCCAACGCGTCGCACATCA	1244
<i>Psy1-B1a</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1b</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1c</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1408
<i>Psy1-B1d</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1351
<i>Psy1-B1e</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1319
<i>Psy1-B1f</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1g</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1h</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1i</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1j</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1337
<i>Psy1-B1k</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1326
<i>Psy1-B1l</i>	CGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1316

Fig. A2. (Continued).

<i>Psy1-B1m</i>	CGCCGACGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1408
<i>Psy1-S1a</i>	CGCCGACGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1328
<i>Psy1-S1b</i>	CGCCGACGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1334
<i>Psy1-S1c</i>	CGCCGACGGCGCTGGACCGGTGGGAGAGGAGGCTGGAGGACCTCTTCGCCGGGCGCCCTACGACATGCT	1314
<i>Psy1-B1a</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1b</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1c</i>	CGACGCGCGCTCTCTCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1478
<i>Psy1-B1d</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1421
<i>Psy1-B1e</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1385
<i>Psy1-B1f</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1g</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1h</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1i</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1j</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1407
<i>Psy1-B1k</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1396
<i>Psy1-B1l</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1386
<i>Psy1-B1m</i>	CGACGCGCGCTCTCTCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1478
<i>Psy1-S1a</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1398
<i>Psy1-S1b</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1404
<i>Psy1-S1c</i>	CGACGCGCGCTCTCCGACACCATCACCAAGTTCGCCATAGATATTCAGGTACCAGCTCGCCGGTGCATA	1384
<i>Psy1-B1a</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1b</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1c</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1547
<i>Psy1-B1d</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1490
<i>Psy1-B1e</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1451
<i>Psy1-B1f</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1g</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1h</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1i</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1j</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1476
<i>Psy1-B1k</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1465
<i>Psy1-B1l</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1455
<i>Psy1-B1m</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1547
<i>Psy1-S1a</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1468
<i>Psy1-S1b</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1473
<i>Psy1-S1c</i>	ATTGTT-CAGTCCACATTGTATGATTCTGGTAGAAGAACAGAGTGGTGGTGGATATTCCTGTGAGCATC	1453
<i>Psy1-B1a</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1b</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1c</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1617
<i>Psy1-B1d</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1560
<i>Psy1-B1e</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1521
<i>Psy1-B1f</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1g</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1h</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1i</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1j</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1546
<i>Psy1-B1k</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1535
<i>Psy1-B1l</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1525
<i>Psy1-B1m</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1617
<i>Psy1-S1a</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1537
<i>Psy1-S1b</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1543
<i>Psy1-S1c</i>	AGATTCTCCCTAGACCTCACAAATCTCAGTGCAAGATGACCGGAAAGTCCGTGATTGGTCAAAATTTGTTTC	1522
<i>Psy1-B1a</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1b</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1c</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1687
<i>Psy1-B1d</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1630
<i>Psy1-B1e</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1591
<i>Psy1-B1f</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1g</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1h</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1i</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1j</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1616
<i>Psy1-B1k</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1605
<i>Psy1-B1l</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1595
<i>Psy1-B1m</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1687
<i>Psy1-S1a</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1607
<i>Psy1-S1b</i>	GTTTGTGCGCCTTTTATTAGTCTCTGATGCTGTTATTGAGTTGTATGAACTTTTCACACATTGTAGTGGG	1613

Fig. A2. (Continued).

<i>Psy1-S1c</i>	GTTTGTGCGCCTTTTGTTCGTCTCTGATGCTGTTATGAGCTGTATGAACTTTTCACACATTGTAGTGGG	1592
<i>Psy1-B1a</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1b</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1c</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1756
<i>Psy1-B1d</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1699
<i>Psy1-B1e</i>	GGCTTATCCAGTTTACTAGACG-C-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1651
<i>Psy1-B1f</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1g</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1h</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1i</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1j</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-B1k</i>	GGCTTATCCAGTTGACTAGACTCTATAGTGGGAACTGGGAGTCATCTGGTCAAAGATATGTTTAATCAA	1675
<i>Psy1-B1l</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAA-----TCATCTGGTCAAAGATATGTTTAATCAA	1656
<i>Psy1-B1m</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1756
<i>Psy1-S1a</i>	GGCTTATCCAGTTGACTAGACTCTATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1677
<i>Psy1-S1b</i>	GGCTTATCCAGTTGACTAGACTCTATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1683
<i>Psy1-S1c</i>	GGCTTATCCAGTTGACTAGACG-TATAGTGGGAACTGGGAATCATCTGGTCAAAGATATGTTTAATCAA	1661
<i>Psy1-B1a</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1b</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1c</i>	ACTAGGGAAATTATAGAAAAG-CTTTTCTATAATAAATA--GTCATGAACATAGCAAGAACAATAAGA	1822
<i>Psy1-B1d</i>	ACTAGGGAAATTATAGAAAAG-CTTTTCTATAATAAATA--GTCATGAACATAGCAAGAACAATAAGA	1765
<i>Psy1-B1e</i>	AGTGGGGAAATTATAGGGAGAACTTTTCAAGTAAATTA--TTCCCAACATACCAGAACAAAACAGGA	1718
<i>Psy1-B1f</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1g</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1h</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1i</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1j</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1743
<i>Psy1-B1k</i>	ACTAGGGAAATTATAGAAAAGACTTTTCTATAAGAAATAATGTCATGAACATAGCAAGAACAATAAGA	1745
<i>Psy1-B1l</i>	AGTGGGGAAATTATAGGGAGAA-TTTTCAATAAGAATTA--GTCCTGAACATGCCAAGAACAAGCAGGA	1722
<i>Psy1-B1m</i>	ACTAGGGAAATTATAGAAAAG-CTTTTCTATAATAAATA--GTCATGAACATAGCAAGAACAATAAGA	1822
<i>Psy1-S1a</i>	ACTAGGGAAATTATAGAAAAT-CTTTTCTATAATAAATA--GTCATGAACATAGCAAGAACAATAAGA	1743
<i>Psy1-S1b</i>	ACTAGGGAAATTATAGAAAAT-CTTTTCTATAATAAATA--GTCATGAACATAGCAAGAACAATAAGA	1749
<i>Psy1-S1c</i>	ACTAGGGAAATTATAGAAAAGACTTTTCTATAAGAAATAATGTCATGAACATAGCAAGAACAATAAGA	1731
<i>Psy1-B1a</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1b</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1c</i>	ACTTGGCAACGATCCAGAGGTATAACAGGAAACAGGGGAAGTCTAA-----	1868
<i>Psy1-B1d</i>	ACTTGGCAACGATCTAGAGGTATAACAGGAAACAGGGGAAGTCTAAGGCTCTGTTTGGTTTATCGTTTCC	1835
<i>Psy1-B1e</i>	ACTTGGAAATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1788
<i>Psy1-B1f</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1g</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1h</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1i</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1j</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1789
<i>Psy1-B1k</i>	ACTTGGCAACGATCTAGAGGTATAACAGGAAACAGGGGAAGTCTAAGGCTCTGTTTGGTTTATCGTTTCC	1815
<i>Psy1-B1l</i>	ACTTGGAGATGATGTAGAAGGAGAAATGAAAACATGAATTATTGGG-----	1768
<i>Psy1-B1m</i>	ACTTGGCAACGATCCAGAGGTATAACAGGAAACAGGGGAAGTCTAA-----	1868
<i>Psy1-S1a</i>	ACTTGGCAACGATCTAGAGGTATAACAGGAAACAGGGGAAGTCTAA-----	1789
<i>Psy1-S1b</i>	ACTTGGCAACGATCTAGAGGTATAACAGGAAACAGGGGAAGTCTAAGGCTCTGTTTGGTTTATCGTTTCC	1819
<i>Psy1-S1c</i>	ACTTGGCAACGATCTAGAGGTATAACAGGAAACAGGGGAAGTCTAA-----	1777
<i>Psy1-B1a</i>	-----	1789
<i>Psy1-B1b</i>	-----	1789
<i>Psy1-B1c</i>	-----	1868
<i>Psy1-B1d</i>	ATTTCAAAATACCCCTGTATAAATTACAGACCTCCGCCGTCGTTTGGCTTCCGGCCGGAATAGCTCTT	1905
<i>Psy1-B1e</i>	TCATGAAA-----	1796
<i>Psy1-B1f</i>	-----	1789
<i>Psy1-B1g</i>	-----	1789
<i>Psy1-B1h</i>	-----	1789
<i>Psy1-B1i</i>	-----	1789
<i>Psy1-B1j</i>	-----	1789
<i>Psy1-B1k</i>	ATTTCAAAATACCCCTGTATAAATTACAGACCTCCGCCGTCGTTTGGCTTCCGGCCGGAATAGCTCTT	1885
<i>Psy1-B1l</i>	-----	1768
<i>Psy1-B1m</i>	-----	1868
<i>Psy1-S1a</i>	-----	1789
<i>Psy1-S1b</i>	ATTTCAAAATACCCCTGTATAAATTACAGACCTCCGCCGTCGTTTGGCTTCCGGCCGGAATAGCTCTT	1889
<i>Psy1-S1c</i>	-----	1777
<i>Psy1-B1a</i>	-----C	1790

Fig. A2. (Continued).

<i>Psy1-B1b</i>	-----C	1790
<i>Psy1-B1c</i>	-----T	1869
<i>Psy1-B1d</i>	GGTCAGTAAGTTACACCCGTAAATAAATTACACCTGTATTCAAATACATCCATACCAAGCGCGCCTAAAT	1975
<i>Psy1-B1e</i>	-----A	1797
<i>Psy1-B1f</i>	-----C	1790
<i>Psy1-B1g</i>	-----C	1790
<i>Psy1-B1h</i>	-----C	1790
<i>Psy1-B1i</i>	-----C	1790
<i>Psy1-B1j</i>	-----C	1790
<i>Psy1-B1k</i>	GGTCAGTAAGTTACACCCGTAAATAAATTACACCTGTATTCAAATACATCCATACCAAGCGCGCCTAAAT	1955
<i>Psy1-B1l</i>	-----C	1769
<i>Psy1-B1m</i>	-----T	1869
<i>Psy1-S1a</i>	-----T	1790
<i>Psy1-S1b</i>	GGTCAGTAAGTTACACCCGTAAATAAATTACACCTGTATTCAAATACATCCATACCAAGCGCGCCTAAAT	1959
<i>Psy1-S1c</i>	-----T	1778
<i>Psy1-B1a</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1b</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1c</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	1939
<i>Psy1-B1d</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	2045
<i>Psy1-B1e</i>	TG--TACTTGGTCACTCTTTTTTACCGTGCCTTGTGCTTTCGGCTAATTTCCATATAAACCCAGTTA	1865
<i>Psy1-B1f</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1g</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1h</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1i</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1j</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1860
<i>Psy1-B1k</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	2025
<i>Psy1-B1l</i>	TGTATTCTGGTCACTGTTTTTTACCGGAGATTGTGCTTTTCGGTCTAATTTCTCCTACAAACCGCGTTA	1839
<i>Psy1-B1m</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	1939
<i>Psy1-S1a</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	1860
<i>Psy1-S1b</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	2029
<i>Psy1-S1c</i>	TGATTTTCATACCTGAAATAGCATTATGAGAATGTTCTTGGTCTGGTTAGTACTATTACTTGAAAAGTTGA	1848
<i>Psy1-B1a</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1b</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1c</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	2008
<i>Psy1-B1d</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	2114
<i>Psy1-B1e</i>	CTCTGTATTTCTTTTCTTTTCTCTTAGTAAATCGGCAGAGCTACTGCCTTGCATTGT-----AAAAAA	1931
<i>Psy1-B1f</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1g</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1h</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1i</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1j</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1922
<i>Psy1-B1k</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	2094
<i>Psy1-B1l</i>	CTGTGTATTTCTTTTCTT-----AATAAAATCGGCAGAGCTACTGCCTTGCATTGTCAATAAGAAAA	1901
<i>Psy1-B1m</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	2008
<i>Psy1-S1a</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	1929
<i>Psy1-S1b</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	2098
<i>Psy1-S1c</i>	AACTATAT-TCTTTATGTTCTAAAATGACCAACTCTTCATATATGTATCATTAGATTATCATAAGATGT	1917
<i>Psy1-B1a</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1b</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1c</i>	TGTTTCATAC-TCCCTCCGTCTCAAAATCTTGGCTTAGATTTGTCTAGATACGGGTGATTTTAACACTA	2077
<i>Psy1-B1d</i>	TGTTTCATAC-TCCCTCCGTCTCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACACTA	2183
<i>Psy1-B1e</i>	AGTT-CATGG-----	1940
<i>Psy1-B1f</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1g</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1h</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1i</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1j</i>	AGTT-CATGGG-----	1932
<i>Psy1-B1k</i>	TGTTTCATTC-TCCCTCCGTCTCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACAATTA	2163
<i>Psy1-B1l</i>	AGTT-CATGGG-----	1911
<i>Psy1-B1m</i>	TGTTTCATAC-TCCCTCCGTCTCAAAATCTTGGCTTAGATTTGTCTAGATACGGGTGATTTTAACACTA	2077
<i>Psy1-S1a</i>	TGTTTCATTC-TCCCTCCGTCTCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACAATTA	1998
<i>Psy1-S1b</i>	TGTTTCATAC-TCCCTCCGTCTCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACACTA	2167
<i>Psy1-S1c</i>	TGTTTCATAC-TCCCTCCGTCTCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACACTA	1986
<i>Psy1-B1a</i>	-----	1932
<i>Psy1-B1b</i>	-----	1932
<i>Psy1-B1c</i>	AAACATTACTAGATACATCAAAATCTTTTCTTAGATTTGTCTAGATACATATGTATTTAACACTAAAAC	2147
<i>Psy1-B1d</i>	AAACATAACTAGATTCATCAAAATCTTGTCTTAGATTTGTCTAGATACGGGTGATTTTAACACTAAAAC	2253

Fig. A2. (Continued).

Psy1-B1e	-----	1940
Psy1-B1f	-----	1932
Psy1-B1g	-----	1932
Psy1-B1h	-----	1932
Psy1-B1i	-----	1932
Psy1-B1j	-----	1932
Psy1-B1k	AAACATAACTAGATACATCAAAATTCCTTGTCTTAGATTTGTCTAGATACGGATGTATTTAACACTAAAAC	2233
Psy1-B1l	-----	1911
Psy1-B1m	AAACATAACTAGATACATCAAAATTCCTTGTCTTAGATTTGTCTAGATACATATGTATTTAACACTAAAAC	2147
Psy1-S1a	AAACATAACTAGATACATCAAAATTCCTTGTCTTAGATTTGTCTAGATACGGATGTATTTAACACTAAAAC	2068
Psy1-S1b	AAACATAACTAGATACATCAAAATTCCTTGTCTTAGATTTGTCTAGATACGGATGTATTTAACACTAAAAC	2237
Psy1-S1c	AAACATAACTAGATACATCAAAATTCCTTGTCTTAGATTTGTCTAGATACGGATGTATTTAACACTAAAAC	2056
Psy1-B1a	-----	1932
Psy1-B1b	-----	1932
Psy1-B1c	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2217
Psy1-B1d	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2323
Psy1-B1e	-----	1940
Psy1-B1f	-----	1932
Psy1-B1g	-----	1932
Psy1-B1h	-----	1932
Psy1-B1i	-----	1932
Psy1-B1j	-----	1932
Psy1-B1k	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2303
Psy1-B1l	-----	1911
Psy1-B1m	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2217
Psy1-S1a	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2138
Psy1-S1b	ATAACTGG-----GTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2300
Psy1-S1c	ATAACTGGATACATCCGTATTTAGACAAATTTAAGACAAGAATTTGGGACGGAGGGAGTATATTTCAATA	2126
Psy1-B1a	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1b	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1c	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTGACTTT-----	2272
Psy1-B1d	TTTGTTATTGTGGATACAATTTTTTATTATAAATTTGGTCAAAA-GTTTG-----TAAAGTTTGACTTT	2387
Psy1-B1e	-TCGTTCTTAGCACTACTACTTAT-----	1963
Psy1-B1f	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1g	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1h	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1i	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1j	-TTGTTCTTAGCACTACTACTTAT-----	1955
Psy1-B1k	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTG-----TAAAGTTTGACTTT	2366
Psy1-B1l	-TTGTTCTTAGCACTACTACTTAT-----	1934
Psy1-B1m	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTGACTTT-----	2271
Psy1-S1a	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTG-----TAAAGTTTGACTTT	2200
Psy1-S1b	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTG-----TAAAGTTTGACTTT	2362
Psy1-S1c	TTTGTTATTGTGGATACAATTTTTTATT-ATAAATTTGGTCAAAA-GTTTG-----TAAAGTTTGACTTT	2189
Psy1-B1a	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1b	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1c	CAAAAAAAAATTATAACCACTACATTACCGAACGGAAACCACTGCATTATCGAACGGAGGGAGTATATTC	2342
Psy1-B1d	CAAAAAAAA-TTATAA-----GCACTACATTATCGAACGGAGGGAGTATATTC	2434
Psy1-B1e	-----GAACATATTATTGA-----TATTC-	1983
Psy1-B1f	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1g	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1h	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1i	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1j	-----GAACATATTATTGA-----TATTC-	1975
Psy1-B1k	CAAAAAAAA-TTATAA-----GCACTACATTATCGAACGGAGGGAGTATATTC	2414
Psy1-B1l	-----GAACATATTATTGA-----TATTC-	1954
Psy1-B1m	CAAAAAAAA-TTATAACCACTACATTACCGAACGGAAACCACTGCATTATCGAACGGAGGGAGTATATTC	2340
Psy1-S1a	CAAAAAAAA-TTATAA-----GCACTACATTATCGAACGGAGGGAGTATATTC	2248
Psy1-S1b	CAAAAAAAA-TTATAA-----GCACTACATTATCGAACGGAGGGAGTATATTC	2410
Psy1-S1c	CAAAAAAAA-TTATAA-----GCACTACATTATCGAACGGAGGGAGTATATTC	2237
Psy1-B1a	TAAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
Psy1-B1b	TAAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
Psy1-B1c	TAAAAATGACAGACTCTTCATACCTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2412
Psy1-B1d	TAAAAATGACAGACTCTTCATACCTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2504
Psy1-B1e	TAAA-TGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2052
Psy1-B1f	TAAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
Psy1-B1g	TAAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045

Fig. A2. (Continued).

<i>Psy1-B1h</i>	TAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
<i>Psy1-B1i</i>	TAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
<i>Psy1-B1j</i>	TAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2045
<i>Psy1-B1k</i>	TAAAATGACAGAACTTTCATACCTTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2484
<i>Psy1-B1l</i>	TAAAATGACCAATTACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTC	2024
<i>Psy1-B1m</i>	TAAAATGACAGAACTTTCATACCTTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2410
<i>Psy1-S1a</i>	TAAAATGACAGAACTTTCATACCTTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2318
<i>Psy1-S1b</i>	TAAAATGACAGAACTTTCATACCTTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2480
<i>Psy1-S1c</i>	TAAAATGACAGAACTTTCATACCTTATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACAGACCTC	2307
<i>Psy1-B1a</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1b</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1c</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2482
<i>Psy1-B1d</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2574
<i>Psy1-B1e</i>	AAGAAGGCCAGGTACAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2122
<i>Psy1-B1f</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1g</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1h</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1i</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1j</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2115
<i>Psy1-B1k</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2554
<i>Psy1-B1l</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2094
<i>Psy1-B1m</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2480
<i>Psy1-S1a</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2388
<i>Psy1-S1b</i>	AAGAAGGCAAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2550
<i>Psy1-S1c</i>	AAGAAGGCCAGATACAAGAACTTCGATGAGCTCTACATGTACTGTACTACGTTCGCAGGCACGGTGGGGC	2377
<i>Psy1-B1a</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1b</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1c</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2552
<i>Psy1-B1d</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2644
<i>Psy1-B1e</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2192
<i>Psy1-B1f</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1g</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1h</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1i</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1j</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2185
<i>Psy1-B1k</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2624
<i>Psy1-B1l</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2164
<i>Psy1-B1m</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2550
<i>Psy1-S1a</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2458
<i>Psy1-S1b</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2620
<i>Psy1-S1c</i>	TGATGAGCGTCCCGGTGATGGGCATTGCGCCCGAGTCCAAGGCGACGGCTGAGAGCGTCTACGGCGCCGC	2447
<i>Psy1-B1a</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1b</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1c</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2622
<i>Psy1-B1d</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2714
<i>Psy1-B1e</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2262
<i>Psy1-B1f</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1g</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1h</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1i</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1j</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2255
<i>Psy1-B1k</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2694
<i>Psy1-B1l</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2234
<i>Psy1-B1m</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2620
<i>Psy1-S1a</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2528
<i>Psy1-S1b</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2690
<i>Psy1-S1c</i>	TCTGGCTCTCGGGTTGGCGAACCACTCACCACATACTCAGGGATGTCGGAGAAGAGTAAGCCACTCAC	2517
<i>Psy1-B1a</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1b</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1c</i>	TTGATTACCACTAAAAGCAATGTTTTCCTTCTGAAAGCAACTCATGATATGAGTATT--AAAATA	2690
<i>Psy1-B1d</i>	TGATTACCACTAAAATGCAACGGTTTTCCCTTCTCTAAAGAACAGGCATGATATGAGTATT--AAAATA	2782
<i>Psy1-B1e</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2324
<i>Psy1-B1f</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1g</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1h</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1i</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317
<i>Psy1-B1j</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2317

Fig. A2. (Continued).

<i>Psy1-B1k</i>	TGATTACCACTAAAATGCAACCGTTTTCCCTTCCTCTAAAGAACAGGCATGATATGAGTATT--AAAATA	2762
<i>Psy1-B1l</i>	TCACTACCAATACAGTGCAATGATTTTCCTT-----GTACAATCATGATATGGACATTTTGAGATA	2296
<i>Psy1-B1m</i>	TGATTACCACTAAAATGCAATGTTTTCCCTTCCTCTGAAAGACAATCATGATATGAGTATT--AAAATA	2688
<i>Psy1-S1a</i>	TGATTACCACTAAAATGCAACCGTTTTCCCTTCCTCTAAAGAACAGGCATGATATGAGTATT--AAAATA	2596
<i>Psy1-S1b</i>	TGATTACCACTAAAATGCAACCGTTTTCCCTTCCTCTAAAGAACAGGCATGATATGAGTATT--AAAATA	2758
<i>Psy1-S1c</i>	TGATTACCACTAAAATGCAACCGTTTTCCCTTCCTCTAAAGAACAGGCATGATATGAGTATT--AAAATA	2585
<i>Psy1-B1a</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1b</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1c</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2760
<i>Psy1-B1d</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2852
<i>Psy1-B1e</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2392
<i>Psy1-B1f</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1g</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1h</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1i</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1j</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2385
<i>Psy1-B1k</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2832
<i>Psy1-B1l</i>	GCACTATCCTGAATGTTCTGGTGTTCGAC--TAATTTTCCAGTCAAGAAGAGGAAGGATATATTTGCC	2364
<i>Psy1-B1m</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2758
<i>Psy1-S1a</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2666
<i>Psy1-S1b</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2828
<i>Psy1-S1c</i>	GCACTATCCTGAAATTTTGTGTGATGCAAAAATTTCTTTTCCAGTGCCTGAAAGAGGAAGGATATATCTACC	2655
<i>Psy1-B1a</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1b</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1c</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAGGAGTCGTCACTGACAAGTGG	2830
<i>Psy1-B1d</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAGGAGTCGTCACTGACAAGTGG	2922
<i>Psy1-B1e</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCTTCAAAGGTCGTCACTGACAAGTGG	2462
<i>Psy1-B1f</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1g</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1h</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1i</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1j</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2455
<i>Psy1-B1k</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2902
<i>Psy1-B1l</i>	GCAAGACGAGCTCGCGGAGGCAGGGCTCTCCGATGAAGACATCGTCAAAGGAGTCGTCACTGACAAGTGG	2434
<i>Psy1-B1m</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAGGAGTCGTCACTGACAAGTGG	2828
<i>Psy1-S1a</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2736
<i>Psy1-S1b</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2898
<i>Psy1-S1c</i>	CAAGACGAGCTCGCGGAGGCAGGGCTCTCCGACGAAGACATCTTCAAAGGAGTCGTCACTGACAAGTGG	2725
<i>Psy1-B1a</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1b</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1c</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2900
<i>Psy1-B1d</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2992
<i>Psy1-B1e</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2532
<i>Psy1-B1f</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1g</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1h</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1i</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1j</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2525
<i>Psy1-B1k</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2972
<i>Psy1-B1l</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2504
<i>Psy1-B1m</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2898
<i>Psy1-S1a</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2806
<i>Psy1-S1b</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2968
<i>Psy1-S1c</i>	AGGAAATTCATGAAGAGGCAGATCAAGAGGGCAGGATGTTCTTCGAGGAGGCAGAGCGAGGGGTGACCG	2795
<i>Psy1-B1a</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1b</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1c</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAACCAAACTTGGAAAGCTAAAAGAA--AAA	2968
<i>Psy1-B1d</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGACCTAAACCAAACTTCAAAGCCAAACAGAACTACA	3062
<i>Psy1-B1e</i>	AGCTCAGGAAGGAGAGCCGGTGGCCAGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2602
<i>Psy1-B1f</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1g</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1h</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1i</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1j</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2595
<i>Psy1-B1k</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAACCAAACTTCAAAGCCAAACAGAACTACA	3042
<i>Psy1-B1l</i>	AGCTCAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAAGCCACAACCTTGAATGTGAAACAAAACCTACA	2574
<i>Psy1-B1m</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCCTAAACCAAACTTGGAAAGCTAAAAGAA--AAA	2966

Fig. A2. (Continued).

<i>Psy1-S1a</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCTAAACCCACAACCTTCAAAGCCAAACAGAACTACA	2876
<i>Psy1-S1b</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCTAAACCCACAACCTTCAAAGCCAAACAGAACTACA	3038
<i>Psy1-S1c</i>	AGCTTAGGAAGGAGAGCCGGTGGCCGGTAAGTGCCTAAACCCACAACCTTCAAAGCCAAACAGAACTACA	2865
<i>Psy1-B1a</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1b</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1c</i>	CATAAAGTTCTCATCGGTGTTAATTATCAGTAAACAGCGAA-GGAGCTATGTCTAGTTCAAGA-----	3029
<i>Psy1-B1d</i>	TACAGAGTTCTCATCGCGTTAATTATCAGTAAACAGCGAAAGGAGCTATGTCTAGTTCAAGACCAGCAAA	3132
<i>Psy1-B1e</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTATGG-----	2661
<i>Psy1-B1f</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1g</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1h</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1i</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1j</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2651
<i>Psy1-B1k</i>	TACAGAGTTCTCATCGGTGTTAATTATCAGTAAACAGCGAAAGGAGCTATGTCTAGTTCAAGACCAGCAAA	3112
<i>Psy1-B1l</i>	TATAGA--TCTCATCATTGTTAATTATCAGTAGCAAAAAAT-GAAGCTATGTCTAGTTTA-----	2630
<i>Psy1-B1m</i>	CATAAAGTTCTCATCGGTGTTAATTATCAGTAAACAGCGAA-GGAGCTATGTCTAGTTCAAGA-----	3027
<i>Psy1-S1a</i>	TACAGAGTTCTCATCGCGTTAATTATCAGTAAACAGCGAAAGGAGCTATGTCTAGTTCAAGACCAGCAAA	2946
<i>Psy1-S1b</i>	TACAGAGTTCTCATCGCGTTAATTATCAGTAAACAGCGAAAGGAGCTATGTCTAGTTCAAGACCAGCAAA	3108
<i>Psy1-S1c</i>	TACAGAGTTCTCATCGCGTTAATTATCAGTAAACAGCGAAAGGAGCTATGTCTAGTTCAAGACCAGCAAA	2935
<i>Psy1-B1a</i>	-----TA-----CCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2693
<i>Psy1-B1b</i>	-----TA-----CCCCCCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2698
<i>Psy1-B1c</i>	-----CCCTCACCTTGGTATAATCATTGAAAAAAAATA	3063
<i>Psy1-B1d</i>	AAAGAAACCTATGTGATTTCAAGGGGGGGCCCTGCCCTCACCTTGGTATAATCATTGAAAGAAATAATA	3202
<i>Psy1-B1e</i>	-----GGGGTCCCCCCCCCCCCCACTTGGTATAGTCATTGAAAAAAAAT--	2705
<i>Psy1-B1f</i>	-----TA-----CCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2694
<i>Psy1-B1g</i>	-----TA-----CCCCCCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2696
<i>Psy1-B1h</i>	-----TA-----CCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2694
<i>Psy1-B1i</i>	-----TA-----CCCCCCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2696
<i>Psy1-B1j</i>	-----TA-----CCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2693
<i>Psy1-B1k</i>	AAAGAAACCTATGTGATTTCAAGGGGGGGCCCTGCCCTCACCTTGGTATAATCATTGAAAGAAATAATA	3182
<i>Psy1-B1l</i>	-----TA-----CCCCCCCCCCCCCTCCCACTTGGTATAATCATTGAAAAAAAAT--	2674
<i>Psy1-B1m</i>	-----CCCTCACCTTGGTATAATCATTGAAAGAAAAATA	3061
<i>Psy1-S1a</i>	AAAGAAACCTATGTGATTTCAAGGGGGGGCCCTGCCCTCACCTTGGTATAATCATTGAAAGAAATAATA	3016
<i>Psy1-S1b</i>	AAAGAAACCTATGTGATTTCAAGGGGGGGCCCTGCCCTCACCTTGGTATAATCATTGAAAGAAATAATA	3178
<i>Psy1-S1c</i>	CAAAAACCTATGTGATTTCAAGGGGGGGCCCTGCCCTCACCTTGGTATAATCATTGAAAGAAATAATA	3005
<i>Psy1-B1a</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2761
<i>Psy1-B1b</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2766
<i>Psy1-B1c</i>	TTAGGGGCTCAAAGTGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3127
<i>Psy1-B1d</i>	TTAGGGGCTTAAATGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3266
<i>Psy1-B1e</i>	TTAGGGGCTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTGCATTGCA-TTGCA-----G	2767
<i>Psy1-B1f</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2762
<i>Psy1-B1g</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2764
<i>Psy1-B1h</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2762
<i>Psy1-B1i</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2764
<i>Psy1-B1j</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2761
<i>Psy1-B1k</i>	TTAGGGGCTTAAATGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3246
<i>Psy1-B1l</i>	TTAGGGGTTCAAATGGAAGAA-GTATCAGTAGAGTGATAATATGGTTTTCAATTTCAT-TTGCAATTGCAG	2742
<i>Psy1-B1m</i>	TTAGGGGCTCAAAGTGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3125
<i>Psy1-S1a</i>	TTAGGGGCTTAAATGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3079
<i>Psy1-S1b</i>	TTAGGGGCTTAAATGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3241
<i>Psy1-S1c</i>	TTAGGGGCTTAAATGAAGAAAGTATCACTTAAAGTGATAATATGGTTTTGCATTGCAATTGCA-----G	3069
<i>Psy1-B1a</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2831
<i>Psy1-B1b</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2836
<i>Psy1-B1c</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3197
<i>Psy1-B1d</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3336
<i>Psy1-B1e</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2837
<i>Psy1-B1f</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2832
<i>Psy1-B1g</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2834
<i>Psy1-B1h</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2832
<i>Psy1-B1i</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2834
<i>Psy1-B1j</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2831
<i>Psy1-B1k</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3316
<i>Psy1-B1l</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	2812
<i>Psy1-B1m</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3195
<i>Psy1-S1a</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3149
<i>Psy1-S1b</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3311
<i>Psy1-S1c</i>	GTTTGGGCCTCTCTGTTGTGTACCGGCAGATCCTCGATGAGATCGAAGCGAACGACTACAACAACCTTCA	3139

Fig. A2. (Continued).

<i>Psy1-B1a</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2901
<i>Psy1-B1b</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2906
<i>Psy1-B1c</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3267
<i>Psy1-B1d</i>	CCAAGAGGGCCTATGTTGGCAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3406
<i>Psy1-B1e</i>	CCAGGAGGGCCTATGTTGGCAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	2907
<i>Psy1-B1f</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2902
<i>Psy1-B1g</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2904
<i>Psy1-B1h</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2902
<i>Psy1-B1i</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2904
<i>Psy1-B1j</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2901
<i>Psy1-B1k</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3386
<i>Psy1-B1l</i>	CCAAGAGGGCCTATGTTGGAAAGGCGAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAAATCGCTGCT	2882
<i>Psy1-B1m</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3265
<i>Psy1-S1a</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3219
<i>Psy1-S1b</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3381
<i>Psy1-S1c</i>	CCAGGAGGGCCTATGTTGGCAAGGCCAAGAAAGTGTGGCGCTCCCTGTTCGCATACGGGAGATCGCTGCT	3209
<i>Psy1-B1a</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2935
<i>Psy1-B1b</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2940
<i>Psy1-B1c</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3301
<i>Psy1-B1d</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3440
<i>Psy1-B1e</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	2941
<i>Psy1-B1f</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2936
<i>Psy1-B1g</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2938
<i>Psy1-B1h</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2936
<i>Psy1-B1i</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2938
<i>Psy1-B1j</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2935
<i>Psy1-B1k</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3420
<i>Psy1-B1l</i>	CTTACCGTCTTCACTGAGAAATAACCAGACCTAG	2916
<i>Psy1-B1m</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3299
<i>Psy1-S1a</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3253
<i>Psy1-S1b</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3415
<i>Psy1-S1c</i>	CTTACCGTATTCACTGAGAAATAACCAGACCTAG	3243

Fig. A2. (Continued).

<i>Psyl-1a</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1b</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1c</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1d</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1e</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1f</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1g</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1h</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1i</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1j</i>	ATG	GCCACCACCGTCACGCTGCTGCTCGGGGAGCCTCGTCCCAGGCCTCGCCCGCGGTGATGGCGCCG	70
<i>Psyl-1a</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1b</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1c</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1d</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1e</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1f</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1g</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1h</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1i</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1j</i>		CGGGGACGGCTTCCAGCGCTCCCGCTGCTGCCAAGAAGCGGAGCAGAGGCAACGCTGGTGTCTG	140
<i>Psyl-1a</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1b</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1c</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1d</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1e</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1f</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1g</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1h</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1i</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1j</i>		CTCGCTACGTACGGTGCCTCGGCCTCGGCGAGCGGGGAGGCGGGCGCGGAGCGCGGCTCCCG	210
<i>Psyl-1a</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1b</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1c</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1d</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1e</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1f</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1g</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1h</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1i</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1j</i>		GTGTACTCCAGCTCACCGTCAGCCCCGGCGGACGCGGCCGTGCGCGTCTCGTCCGAGCAGAAAG	280
<i>Psyl-1a</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1b</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1c</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1d</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1e</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1f</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1g</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1h</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1i</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1j</i>		TGTACGACGTGGTGGTGAAGCAGGCGGCATTGCTCAAGCGCCAGCTGCGCCCGCAGCAGCAGCAGGCGGC	350
<i>Psyl-1a</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1b</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1c</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1d</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1e</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1f</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1g</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1h</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1i</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1j</i>		GCCGCCCGCTCGCCAGGGAGATGGACGCGCGCGCGGGCTCGGGGAGGCTACGCCCGCTGCGGC	420
<i>Psyl-1a</i>		GAGATCTGCGAGGAGTACGCCAAGACCTTCTACTCGGTACACCCTCCTTTCATGGATACTCTGTTTTTC	490
<i>Psyl-1b</i>		GAGATCTGCGAGGAGTACGCCAAGACCTTCTACTCGGTACACCCTCCTTTCATGGATACTCTGTTTTTC	490
<i>Psyl-1c</i>		GAGATCTGCGAGGAGTACGCCAAGACCTTCTACTCGGTACACCCTCCTTTCATGGATACTCTGTTTTTC	490
<i>Psyl-1d</i>		GAGATCTGCGAGGAGTACGCCAAGACCTTCTACTCGGTACACCCTCCTTTCATGGATACTCTGTTTTTC	490
<i>Psyl-1e</i>		GAGATCTGCGAGGAGTACGCCAAGACCTTCTACTCGGTACACCCTCCTTTCATGGATACTCTGTTTTTC	490

Fig. A3. Alignment of the alleles at *Psyl-1* locus.

<i>Psy1-D1f</i>	GAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACACCCTCCTTCATGGATACTCTGTTTTTC	490
<i>Psy1-D1g</i>	GAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACACCCTCCTTCATGGATACTCTGTTTTTC	490
<i>Psy1-D1h</i>	GAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACACCCTCCTTCATGGATACTCTGTTTTTC	490
<i>Psy1-D1i</i>	GAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACACCCTCCTTCATGGATACTCTGTTTTTC	490
<i>Psy1-D1j</i>	GAGATCTGCGAGGAGTACGCCAAGACCTTCTACCTCGGTACACCCTCCTTCATGGATACTCTGTTTTTC	490
<i>Psy1-D1a</i>	TT-----	492
<i>Psy1-D1b</i>	TT-----	492
<i>Psy1-D1c</i>	TT-----	492
<i>Psy1-D1d</i>	TT-----	492
<i>Psy1-D1e</i>	TT-----	492
<i>Psy1-D1f</i>	TT-----	492
<i>Psy1-D1g</i>	TT-----	492
<i>Psy1-D1h</i>	TT-----	492
<i>Psy1-D1i</i>	TT-----	492
<i>Psy1-D1j</i>	TTTTTTTTCGAAAAGGGGATCTCCCCGGCCTCTGCATCAGAATGATGCATACGACCATCTTATTACCAA	560
<i>Psy1-D1a</i>	-----	492
<i>Psy1-D1b</i>	-----	492
<i>Psy1-D1c</i>	-----	492
<i>Psy1-D1d</i>	-----	492
<i>Psy1-D1e</i>	-----	492
<i>Psy1-D1f</i>	-----	492
<i>Psy1-D1g</i>	-----	492
<i>Psy1-D1h</i>	-----	492
<i>Psy1-D1i</i>	-----	492
<i>Psy1-D1j</i>	ATAAAAGGTTCCAACAAGGTTCCAAGTCTCGGACTGAAAAAGTAATAAAAAGACAGCTCATAAGAGCT	630
<i>Psy1-D1a</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1b</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1c</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1d</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1e</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1f</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1g</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1h</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1i</i>	-----GAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	526
<i>Psy1-D1j</i>	AAAAGAGGCTAAACACACAGACTAGCCAAGATAAATAAACCATGGTGGCATTCTGCTGCGTGCCAAGCCG	700
<i>Psy1-D1a</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1b</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1c</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1d</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1e</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1f</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1g</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1h</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1i</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	596
<i>Psy1-D1j</i>	GTGTTGTGCTGATCATGGAGCTCACTCGTTCATGTCGGTTCGTGCATGGCAGGGACCTTGCTGATGACGG	770
<i>Psy1-D1a</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1b</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1c</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1d</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1e</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1f</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1g</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1h</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1i</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	666
<i>Psy1-D1j</i>	AGGAGCGGCGCGGCCATATGGGCCATCTACGGTAATCAATCTGGAACCTCACCATGCCTGGCTGGAC	840
<i>Psy1-D1a</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1b</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1c</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1d</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1e</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1f</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1g</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1h</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1i</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	736
<i>Psy1-D1j</i>	CCTCAATTGTTGCTCCCCTGTTGTTAGTATCAGTATGTGTACACAGTGTGAGTTAGTTTCAGTAATGTGA	910

Fig. A3. (Continued).

<i>Psy1-D1a</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCATCAGAAAGGGCATGCCACATTTTGCATCAGTT</u>	806
<i>Psy1-D1b</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAGACCTCAGAAAAG-----</u>	781
<i>Psy1-D1c</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAGACCTCAGAAAAG-----</u>	781
<i>Psy1-D1d</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAGACCTCAGAAAAG-----</u>	781
<i>Psy1-D1e</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCATCAGAAAGGGCATGCCACATTTTGCATCAGTT</u>	806
<i>Psy1-D1f</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCATCAGAAAGGGCATGCCACATTTTGCATCAGTT</u>	806
<i>Psy1-D1g</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAGACCTCAGAAAAG-----</u>	781
<i>Psy1-D1h</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCTCAGAAAAGGGCATGCCACATTTTGCATCAGTT</u>	806
<i>Psy1-D1i</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCATCAGAAAGGGCATGCCACATTTTGCATCAGTT</u>	806
<i>Psy1-D1j</i>	<u>CTGAAAATGAAGCTAGTTTCATTTTCACTTCAAACCTCAGAAAAGGGCATGCCACATTTTGCATCAGTT</u>	980
<i>Psy1-D1a</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	876
<i>Psy1-D1b</i>	<u>-----</u>	781
<i>Psy1-D1c</i>	<u>-----</u>	781
<i>Psy1-D1d</i>	<u>-----</u>	781
<i>Psy1-D1e</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	876
<i>Psy1-D1f</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	876
<i>Psy1-D1g</i>	<u>-----</u>	781
<i>Psy1-D1h</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	876
<i>Psy1-D1i</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	876
<i>Psy1-D1j</i>	<u>AAATTGCGACATATTTAACGGCAACTTGCAAGAATATTTTGAAACTCCCCAAGAAAATCGGCCACTTTTC</u>	1050
<i>Psy1-D1a</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	946
<i>Psy1-D1b</i>	<u>-----</u>	781
<i>Psy1-D1c</i>	<u>-----</u>	781
<i>Psy1-D1d</i>	<u>-----</u>	781
<i>Psy1-D1e</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	946
<i>Psy1-D1f</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	946
<i>Psy1-D1g</i>	<u>-----</u>	781
<i>Psy1-D1h</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	946
<i>Psy1-D1i</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	946
<i>Psy1-D1j</i>	<u>AGTTAATGGTGTGAAGCTAGTTCTGGATGCGAATAATGGCAAATAGAAACATTGCTGAACCTCCATGCTAT</u>	1120
<i>Psy1-D1a</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1016
<i>Psy1-D1b</i>	<u>-----TAATGTCAGTTAGTGAAGAATAAAGGCCTCATATAATAC-TTTTTTATAGGCCATTATGTATG</u>	843
<i>Psy1-D1c</i>	<u>-----TAATGTCAGTTAGTGAAGAATAAAGGCCTCATATAATAC-TTTTTTATAGGCCATTATGTATG</u>	843
<i>Psy1-D1d</i>	<u>-----TAATGTCAGTTAGTGAAGAATAAAGGCCTCATATAATAC-TTTTTTATAGGCCATTATGTATG</u>	843
<i>Psy1-D1e</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1016
<i>Psy1-D1f</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1016
<i>Psy1-D1g</i>	<u>-----TAATGTCAGTTAGTGAAGAATAAAGGCCTCATATAATAC-TTTTTTATATGCCATTATGTGTG</u>	844
<i>Psy1-D1h</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1016
<i>Psy1-D1i</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1016
<i>Psy1-D1j</i>	<u>ATATACATAGATACAGTTAGTGAAGAATAAAGGCCTCATATAATACCTTTTTTATATGCCATTATGTGTG</u>	1190
<i>Psy1-D1a</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1086
<i>Psy1-D1b</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGT</u>	913
<i>Psy1-D1c</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGT</u>	913
<i>Psy1-D1d</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGT</u>	913
<i>Psy1-D1e</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1086
<i>Psy1-D1f</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1086
<i>Psy1-D1g</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGT</u>	914
<i>Psy1-D1h</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1086
<i>Psy1-D1i</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1086
<i>Psy1-D1j</i>	<u>GAAGCATCAAATAGGCTTTTTGTTGGCTGAATGGCTTCAATAGGATCAAAGTACATGAGAAAAGTTGC</u>	1260
<i>Psy1-D1a</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1156
<i>Psy1-D1b</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAGTGTGAATCTGAGG-TTCTGTCTAGTTCTAAATGAGATATAC</u>	982
<i>Psy1-D1c</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAGTGTGAATCTGAGG-TTCTGTCTAGTTCTAAATGAGATATAC</u>	982
<i>Psy1-D1d</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAGTGTGAATCTGAGG-TTCTGTCTAGTTCTAAATGAGATATAC</u>	982
<i>Psy1-D1e</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1156
<i>Psy1-D1f</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1156
<i>Psy1-D1g</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAGTGTGAATCTGAGG-TTCTGTCTAGTTCTAAATGAGATATAC</u>	983
<i>Psy1-D1h</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1156
<i>Psy1-D1i</i>	<u>AAGAACAATTCCTCAAATTACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1156
<i>Psy1-D1j</i>	<u>AAGAACAATTCCTC-AC TACTTAAGGAATGTGAATCTGAGGTTCTGTCTAGTTCTAAATGAGATATAC</u>	1328
<i>Psy1-D1a</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATTTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1226
<i>Psy1-D1b</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1052
<i>Psy1-D1c</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1052
<i>Psy1-D1d</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1052
<i>Psy1-D1e</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1226
<i>Psy1-D1f</i>	<u>TCTAGGCATCGATCACTTTTTCAGAAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1226

Fig. A3. (Continued).

<i>Psy1-D1g</i>	<u>TCTAGGCATCGATCACTTTT CAGAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1053
<i>Psy1-D1h</i>	<u>TCTAGGCATCGATCACTTTT CAGAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1226
<i>Psy1-D1i</i>	<u>TCTAGGCATCGATCACTTTT CAGAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1226
<i>Psy1-D1j</i>	<u>TCTAGGCATCGATCACTTTT CAGAATCTGATGTACAGCATCCTTTTGTGCAGTGTGGTGTAGGAGGACAGAC</u>	1398
<i>Psy1-D1a</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1296
<i>Psy1-D1b</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1122
<i>Psy1-D1c</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1122
<i>Psy1-D1d</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1122
<i>Psy1-D1e</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1296
<i>Psy1-D1f</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1296
<i>Psy1-D1g</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1123
<i>Psy1-D1h</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1296
<i>Psy1-D1i</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1296
<i>Psy1-D1j</i>	<u>GAGCTGGTGGACGGGCCGAACCGCTCGCACATCACGCCGAGGCGCTGGACCGGTGGGAGAGGAGGCTGG</u>	1468
<i>Psy1-D1a</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1366
<i>Psy1-D1b</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1192
<i>Psy1-D1c</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1192
<i>Psy1-D1d</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1192
<i>Psy1-D1e</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1366
<i>Psy1-D1f</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1366
<i>Psy1-D1g</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1193
<i>Psy1-D1h</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1366
<i>Psy1-D1i</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1366
<i>Psy1-D1j</i>	<u>AGGACCTCTTCGCGGGCGCCCCACGACATGCTCGACGCGCGCTCTCCGACACCATCACCAAGTTCCC</u>	1538
<i>Psy1-D1a</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1436
<i>Psy1-D1b</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1262
<i>Psy1-D1c</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1262
<i>Psy1-D1d</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1262
<i>Psy1-D1e</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1436
<i>Psy1-D1f</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1436
<i>Psy1-D1g</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1262
<i>Psy1-D1h</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1436
<i>Psy1-D1i</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1436
<i>Psy1-D1j</i>	<u>CATAGATATTCAGGTACCAGCTTAGCCGGTGCACAATTTGTTTCAGTCCACATTTGATGATTCGGGTAGAAC</u>	1608
<i>Psy1-D1a</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1506
<i>Psy1-D1b</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1332
<i>Psy1-D1c</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1332
<i>Psy1-D1d</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1332
<i>Psy1-D1e</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1506
<i>Psy1-D1f</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1506
<i>Psy1-D1g</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1332
<i>Psy1-D1h</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1506
<i>Psy1-D1i</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1506
<i>Psy1-D1j</i>	<u>AGAGTGGTGGTGGATATTCCTTGTGACATCAGATTGCCCTAGACCTCACAATCTAAGTGCAAGATGAC</u>	1678
<i>Psy1-D1a</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1576
<i>Psy1-D1b</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1402
<i>Psy1-D1c</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1402
<i>Psy1-D1d</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1402
<i>Psy1-D1e</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1576
<i>Psy1-D1f</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1576
<i>Psy1-D1g</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1402
<i>Psy1-D1h</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1576
<i>Psy1-D1i</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1576
<i>Psy1-D1j</i>	<u>CAGAAAGTCCATGATTGGTCAAATTTGTTTCGTTTGTTCGGCCTTTTGTAGTCTCTGATGCTGTTGTTGA</u>	1748
<i>Psy1-D1a</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1646
<i>Psy1-D1b</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1472
<i>Psy1-D1c</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1472
<i>Psy1-D1d</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1472
<i>Psy1-D1e</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1646
<i>Psy1-D1f</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1646
<i>Psy1-D1g</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1472
<i>Psy1-D1h</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1646
<i>Psy1-D1i</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1646
<i>Psy1-D1j</i>	<u>GCCGTATGAACTTTTACACATTTGATGAGGGGCTTATCCAATTGACTAGACGCTATAGTGGGAATCGTC</u>	1818
<i>Psy1-D1a</i>	<u>TGGTCAAAGATATGTTTATGATCAAAGTGGGAAAATTATAGGAGAACTTTTTCAGTAAGTATTATCCCGAA</u>	1716

Fig. A3. (Continued).

<i>Psy1-D1b</i>	TGGTCAAAGATATGTTTAAATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1542
<i>Psy1-D1c</i>	TGGTCAAAGATATGTTTAAATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1542
<i>Psy1-D1d</i>	TGGTCAAAGATATGTTTAAATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1542
<i>Psy1-D1e</i>	TGGTCAAAGATATGTTTGATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1716
<i>Psy1-D1f</i>	TGGTCAAAGATATGTTTGATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1716
<i>Psy1-D1g</i>	TGGTCAAAGATATGTTTGATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1542
<i>Psy1-D1h</i>	TGGTCAAAGATATGTTTGATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1716
<i>Psy1-D1i</i>	TGGTCAAAGATATGTTTGATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1716
<i>Psy1-D1j</i>	TGGTCAAAGATATGTTTAAATCAAAGTGGGAAATTAAGGGAGAAGCTTTTCAGTAAGTATTATTCCCGAA	1888
<i>Psy1-D1a</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1786
<i>Psy1-D1b</i>	CATACCTAGAACAACAGGAACTTATAGATGATGTAGAATTAGAAATGAAATCAGGGAGAGTCCAAGTAA	1612
<i>Psy1-D1c</i>	CATACCTAGAACAACAGGAACTTATAGATGATGTAGAATTAGAAATGAAATCAGGGAGAGTCCAAGTAA	1612
<i>Psy1-D1d</i>	CATACCTAGAACAACAGGAACTTATAGATGATGTAGAATTAGAAATGAAATCAGGGAGAGTCCAAGTAA	1612
<i>Psy1-D1e</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1786
<i>Psy1-D1f</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1786
<i>Psy1-D1g</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1612
<i>Psy1-D1h</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1786
<i>Psy1-D1i</i>	CATACCTAGAACAACAGGAACTTGGAAATGATGTAGAAGGAAAAATGAAATCAGGGAGAGTCCAAGTAA	1786
<i>Psy1-D1j</i>	CATACCTAGAACAACAGGAACTTATAGATGATGTAGAATTAGAAATGAAATCAGGGAGAGTCCAAGTAA	1958
<i>Psy1-D1a</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1856
<i>Psy1-D1b</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1682
<i>Psy1-D1c</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1682
<i>Psy1-D1d</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1682
<i>Psy1-D1e</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1856
<i>Psy1-D1f</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1856
<i>Psy1-D1g</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1682
<i>Psy1-D1h</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1856
<i>Psy1-D1i</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	1856
<i>Psy1-D1j</i>	CTCCACACCTGAATAATACATCATGAAAATGTAAGTGGTCCCTGTTTTTACTGGGCTTTGTTGTTTTCC	2028
<i>Psy1-D1a</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1926
<i>Psy1-D1b</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTT-----	1730
<i>Psy1-D1c</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTT-----	1730
<i>Psy1-D1d</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTT-----	1730
<i>Psy1-D1e</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1926
<i>Psy1-D1f</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1926
<i>Psy1-D1g</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1752
<i>Psy1-D1h</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1926
<i>Psy1-D1i</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTTTGAGTATTTGACAAAAAACTAC	1926
<i>Psy1-D1j</i>	GCCTAATTTCCCATATAAACCACGTTACTCTGTATTTCTTTTCTTTTT-----	2076
<i>Psy1-D1a</i>	CATATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1996
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	CACATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1996
<i>Psy1-D1f</i>	CACATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1996
<i>Psy1-D1g</i>	CACATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1822
<i>Psy1-D1h</i>	CACATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1996
<i>Psy1-D1i</i>	CACATTAGGGGTTGCCGTCCACAGAACTACCACATTCAAAAAAGTGACTGATAACTATCAATTTTTTTTA	1996
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	2066
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	2066
<i>Psy1-D1f</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	2066
<i>Psy1-D1g</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	1891
<i>Psy1-D1h</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	2065
<i>Psy1-D1i</i>	AAATTTTGTGACCAAAAACTACCCTTTTGAAAAATGGTCAGTTTAGATGATTTAAACACGTTTATGCCA	2066
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	TGCGGGACCCACCTGTGACGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	2136
<i>Psy1-D1b</i>	-----	1742
<i>Psy1-D1c</i>	-----	1742
<i>Psy1-D1d</i>	-----	1742
<i>Psy1-D1e</i>	TGCGGGACCCACCTGTGACGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	2136
<i>Psy1-D1f</i>	TGCGGGACCCACCTGTGACGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	2136
<i>Psy1-D1g</i>	TGCGGGACCCACCTGTGACGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	1961

Fig. A3. (Continued).

<i>Psy1-D1h</i>	TGCGGGACCCACCCTCAGGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	2135
<i>Psy1-D1i</i>	TGCGGGACCCACCTCTCAGGGCTGACGTGGCGGCAAAGTCAACTCTGTTGATTTGACCGTTACGTTGAC	2136
<i>Psy1-D1j</i>	-----	2088
<i>Psy1-D1a</i>	CGTTATTACAAGTGGGAGCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTCTTTTGGCATT	2206
<i>Psy1-D1b</i>	-----	1742
<i>Psy1-D1c</i>	-----	1742
<i>Psy1-D1d</i>	-----	1742
<i>Psy1-D1e</i>	CGTTATTACAAGTGGGACCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTTTTGGCATT	2206
<i>Psy1-D1f</i>	CGTTATTACAAGTGGGACCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTTTTGGCATT	2206
<i>Psy1-D1g</i>	CGTTATTACAAGTGGGACCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTTTTGGCATT	2031
<i>Psy1-D1h</i>	CGTTATTACAAGTGGGACCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTTTTGGCATT	2205
<i>Psy1-D1i</i>	CGTTATTACAAGTGGGACCCACCTGTGACGATCACTCTTCTTCTTCTCTCTCTCTCTCTTTTGGCATT	2206
<i>Psy1-D1j</i>	-----	2088
<i>Psy1-D1a</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2276
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2276
<i>Psy1-D1f</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2276
<i>Psy1-D1g</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2101
<i>Psy1-D1h</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2275
<i>Psy1-D1i</i>	CCTCAAACACCTCGTGTGCACTCGCAAGGCACCTCCGTGTCCTCAACTGTGCGGCGTCACCTCTCCCA	2276
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2346
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2346
<i>Psy1-D1f</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2346
<i>Psy1-D1g</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2171
<i>Psy1-D1h</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2345
<i>Psy1-D1i</i>	TGCTTCGATCCCGTCTGGATCGGGAGAGCCCAAGCTGCCCAACCACTCCGGCGACCGCTCTCCCCCTCG	2346
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	CATCACTCCAGC-----CCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2395
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	CATCACTCCAGC-----CCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2395
<i>Psy1-D1f</i>	CATCACTCCAGC-----CCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2395
<i>Psy1-D1g</i>	CTCACTCCAGCAGGTCTCTGCGGTGACCACCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2241
<i>Psy1-D1h</i>	CATCACTCCAGC-----CCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2394
<i>Psy1-D1i</i>	CATCACTCCAGC-----CCTAGCTAGTACTCGCACGCACGAACCAACCTAGTA	2395
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2465
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2465
<i>Psy1-D1f</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2465
<i>Psy1-D1g</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2311
<i>Psy1-D1h</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2464
<i>Psy1-D1i</i>	GTACTCCACAAAACCTACAACGCACGCGTACGCTCAAGCATTGGCCACTAAAATCTTGTTCAAAAGAATTA	2465
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2535
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2535
<i>Psy1-D1f</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2535
<i>Psy1-D1g</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2381
<i>Psy1-D1h</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2534
<i>Psy1-D1i</i>	AACGACAACACACACGACCGTGAAGCATCGGCCTTGGTTCGAGCTACCACACGAGCTCCTGGGGCTCTT	2535
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	CGTCGCCACCTCCGTCCTCCGTGACGTTGACGCCGGCGCGAGGCCACGGCGCGGATGCCGCCAAG	2605
<i>Psy1-D1b</i>	-----	1747

Fig. A3. (Continued).

<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	CGTCGCCCCACCTCCCGTCCCTGTCAGTTGCAGCCGGCGCGCGAGGCCACGGCGCCGGATGCCGCCAAG	2605
<i>Psy1-D1f</i>	CGTCGCCCCACCTCCCGTCCCTGTCAGTTGCAGCCGGCGCGCGAGGCCACGGCGCCGGATGCCGCCAAG	2605
<i>Psy1-D1g</i>	CGTCGCCCCACCTCCCGTCCCTGTCAGTTGCAGCCGGCGCGCGAGGCCACGGCGCCAGATGCCGCCAAG	2451
<i>Psy1-D1h</i>	CGTCGCCCCACCTCCCGTCCCTGTCAGTTGCAGCCGGCGCGCGAGGCCACGGCGCCGGATGCCGCCAAG	2604
<i>Psy1-D1i</i>	CGTCGCCCCACCTCCCGTCCCTGTCAGTTGCAGCCGGCGCGCGAGGCCACGGCGCCGGATGCCGCCAAG	2605
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2675
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2675
<i>Psy1-D1f</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2675
<i>Psy1-D1g</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2521
<i>Psy1-D1h</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2672
<i>Psy1-D1i</i>	CTCGCGCGCCTCGTCGAGGAGCTGCAAGAGCGAGAGTCCCGCCTGCACACCGACTTGCTCGAGCACAAAA	2675
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2745
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2745
<i>Psy1-D1f</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2745
<i>Psy1-D1g</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2591
<i>Psy1-D1h</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2742
<i>Psy1-D1i</i>	TCCTCAAGGAGACCGTCGTCGAGGAGCTGCGTCGGGTGGTGGCGTCGACGGCCTCGGAGGAAATTCGTC	2745
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2815
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2815
<i>Psy1-D1f</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2815
<i>Psy1-D1g</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2661
<i>Psy1-D1h</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2812
<i>Psy1-D1i</i>	AGCTTCGGCGGCCGCTCCACAGCTCCAGCCACCTTGGTTGCGCCACCCTTCCTGTCCCCAACCAACGCC	2815
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2885
<i>Psy1-D1b</i>	-----	1747
<i>Psy1-D1c</i>	-----	1747
<i>Psy1-D1d</i>	-----	1747
<i>Psy1-D1e</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2885
<i>Psy1-D1f</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2885
<i>Psy1-D1g</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2731
<i>Psy1-D1h</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2882
<i>Psy1-D1i</i>	AGTGACGTGCTGCGCCGGGGCGTCACCATGGAGGAGTTCCGGAGCTCAAGCCCAGGATGCACACAAGGTGTT	2885
<i>Psy1-D1j</i>	-----	2093
<i>Psy1-D1a</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2955
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2955
<i>Psy1-D1f</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2955
<i>Psy1-D1g</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2801
<i>Psy1-D1h</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2952
<i>Psy1-D1i</i>	CGAGGAAATGCTAGAGAAAGGAGGAGAAAGAAGAAGAGTGATGCTGACAGGTGGGCCCTCACTTGTAAATAA	2955
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	CGGTCAATGTAACGGTCAAAATAAACAGAGTTGACTTTGCCGCCACGTGACCCCTGACAGGTGGGTCCCG	3025
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	CGGTCAATGTAACGGTCAAAATAAACAGAGTTGACTTTGCCGCCACGTGACCCCTGACAGGTGGGTCCCG	3025
<i>Psy1-D1f</i>	CGGTCAATGTAACGGTCAAAATAAACAGAGTTGACTTTGCCGCCACGTGACCCCTGACAGGTGGGTCCCG	3025
<i>Psy1-D1g</i>	CGGTCAATGTAACGGTCAAAATAAACAGAGTTGACTTTGCCGCCACGTGACCCCTGACAGGTGGGTCCCG	2871

Fig. A3. (Continued).

<i>Psy1-D1h</i>	<u>CGGTCAATGTAACGGTCAAATAAAACAGAGTTGACTTTGCCGCCACGTGAGCCCTGACAGGTGGGTC</u>	3022
<i>Psy1-D1i</i>	<u>CGGTCAATGTAACGGTCAAATAAAACAGAGTTGACTTTGCCGCCACGTGAGCCCTGACAGGTGGGTC</u>	3025
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	<u>CATGTCCC-----GTGGTAGTTTTAGTCACAAAAT</u>	3056
<i>Psy1-D1b</i>	-----	1763
<i>Psy1-D1c</i>	-----	1763
<i>Psy1-D1d</i>	-----	1763
<i>Psy1-D1e</i>	<u>CATGTCCC-----GTGGTAGTTTTAGTCACAAAAT</u>	3056
<i>Psy1-D1f</i>	<u>CATGTCCC-----GTGGTAGTTTTAGTCACAAAAT</u>	3056
<i>Psy1-D1g</i>	<u>CATGTCAATAACGTGTTAAATCATCTAACTGACCATTTTTCAAAGTGGTAGTTTTAGTCACAAAAT</u>	2941
<i>Psy1-D1h</i>	<u>CATGTCCC-----GTGGTAGTTTTAGTCACAAAAT</u>	3053
<i>Psy1-D1i</i>	<u>CATGTCCC-----GTGGTAGTTTTAGTCACAAAAT</u>	3056
<i>Psy1-D1j</i>	-----	2109
<i>Psy1-D1a</i>	<u>TAGAAATTTTGATAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3126
<i>Psy1-D1b</i>	-----	1730
<i>Psy1-D1c</i>	-----	1730
<i>Psy1-D1d</i>	-----	1730
<i>Psy1-D1e</i>	<u>TAGAAATTTTGATAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3126
<i>Psy1-D1f</i>	<u>TAGAAATTTTGATAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3126
<i>Psy1-D1g</i>	<u>TAGAAATTTTGCTAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3011
<i>Psy1-D1h</i>	<u>TAGAAATTTTGATAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3123
<i>Psy1-D1i</i>	<u>TAGAAATTTTGATAGTTATCAGTCACCTTTTTGAATGTGGTAGTTCCTGTGGGACGGCAACCCCTAATGT</u>	3126
<i>Psy1-D1j</i>	-----	2076
<i>Psy1-D1a</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTTC-----</u>	3157
<i>Psy1-D1b</i>	-----CTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA	1770
<i>Psy1-D1c</i>	-----CTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA	1770
<i>Psy1-D1d</i>	-----CTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA	1770
<i>Psy1-D1e</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTTC-----</u>	3157
<i>Psy1-D1f</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTTC-----</u>	3157
<i>Psy1-D1g</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTCTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA</u>	3081
<i>Psy1-D1h</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTCTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA</u>	3193
<i>Psy1-D1i</i>	<u>GGTAGTTTTTGTCAAATACTCTTCTTTTTTC-----</u>	3157
<i>Psy1-D1j</i>	-----CTCATAGTGAATCGGCAGTGATCCTGCCTTGCATTGTAA	2116
<i>Psy1-D1a</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3226
<i>Psy1-D1b</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	1840
<i>Psy1-D1c</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	1840
<i>Psy1-D1d</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	1840
<i>Psy1-D1e</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3226
<i>Psy1-D1f</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3226
<i>Psy1-D1g</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3151
<i>Psy1-D1h</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3263
<i>Psy1-D1i</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	3226
<i>Psy1-D1j</i>	<u>AAAAAGGCTTGGTCGTTCTTAGCACTACTACTATGAACATATATATTGATTTTCTAAATGACCAATT</u>	2183
<i>Psy1-D1a</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3296
<i>Psy1-D1b</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	1910
<i>Psy1-D1c</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	1910
<i>Psy1-D1d</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	1910
<i>Psy1-D1e</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3296
<i>Psy1-D1f</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3296
<i>Psy1-D1g</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3221
<i>Psy1-D1h</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3333
<i>Psy1-D1i</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	3296
<i>Psy1-D1j</i>	<u>ACTTTTACATATGCCAGCCCTTCAAGGACATGATCGACGGGATGCGGACGGACCTTAAGAAGGCGAGGTA</u>	2253
<i>Psy1-D1a</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3366
<i>Psy1-D1b</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	1980
<i>Psy1-D1c</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	1980
<i>Psy1-D1d</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	1980
<i>Psy1-D1e</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3366
<i>Psy1-D1f</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3366
<i>Psy1-D1g</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3291
<i>Psy1-D1h</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3403
<i>Psy1-D1i</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	3366
<i>Psy1-D1j</i>	<u>CAAGAACCTTGACGAGCTCTACATGTACTGCTACTATGTTGCCGGCACCGTGGGGTTGATGAGCGTCCC</u>	2323
<i>Psy1-D1a</i>	<u>GTGATGGGCATTGCCCGGAGTCCAAGGCAGACCGAGAGCGTCTATGGCGCGCTCTGGCTCTTGGCC</u>	3436

Fig. A3. (Continued).

<i>Psy1-D1b</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	2050
<i>Psy1-D1c</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	2050
<i>Psy1-D1d</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	2050
<i>Psy1-D1e</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	3436
<i>Psy1-D1f</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	3436
<i>Psy1-D1g</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	3361
<i>Psy1-D1h</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	3473
<i>Psy1-D1i</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	3436
<i>Psy1-D1j</i>	GTGATGGGCATTGCGCCGGAGTCCAAGGCGACAGCCGAGAGCGTCTATGGCGCCGCTCTGGCTCTTTGGCC	2393
<i>Psy1-D1a</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3506
<i>Psy1-D1b</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	2120
<i>Psy1-D1c</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	2120
<i>Psy1-D1d</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	2120
<i>Psy1-D1e</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3506
<i>Psy1-D1f</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3506
<i>Psy1-D1g</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3431
<i>Psy1-D1h</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3543
<i>Psy1-D1i</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	3506
<i>Psy1-D1j</i>	TCGCGAACCAGCTCACCAACATACTCAGGGATGTTGGAGAAGAGTAAGCAACTCATTGACTACCAATGCA	2463
<i>Psy1-D1a</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3576
<i>Psy1-D1b</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	2190
<i>Psy1-D1c</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	2190
<i>Psy1-D1d</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	2190
<i>Psy1-D1e</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3576
<i>Psy1-D1f</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3576
<i>Psy1-D1g</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3501
<i>Psy1-D1h</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3613
<i>Psy1-D1i</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	3576
<i>Psy1-D1j</i>	ATTGCAGTGCATGGTTTTCCATTGTACAATCATGATACGGATATTTTCAGATAGCACTATCCTGAATTT	2533
<i>Psy1-D1a</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3646
<i>Psy1-D1b</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	2260
<i>Psy1-D1c</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	2260
<i>Psy1-D1d</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	2260
<i>Psy1-D1e</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3646
<i>Psy1-D1f</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3646
<i>Psy1-D1g</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3571
<i>Psy1-D1h</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3683
<i>Psy1-D1i</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	3646
<i>Psy1-D1j</i>	TCTGGTGTGGGAATAATTTGCAGTGCAGAAGAGGGAGGATATATTTGCCACAAGACGAGCTTGC GGAG	2603
<i>Psy1-D1a</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3716
<i>Psy1-D1b</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	2330
<i>Psy1-D1c</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	2330
<i>Psy1-D1d</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	2330
<i>Psy1-D1e</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3716
<i>Psy1-D1f</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3716
<i>Psy1-D1g</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3641
<i>Psy1-D1h</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3753
<i>Psy1-D1i</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	3716
<i>Psy1-D1j</i>	GCGGGGCTCTCCGATGAAGACATCTTCAAAGGAGTCGTCACCGACAAGTGGAGGAAATTCATGAAGAGGC	2673
<i>Psy1-D1a</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3786
<i>Psy1-D1b</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	2400
<i>Psy1-D1c</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	2400
<i>Psy1-D1d</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	2400
<i>Psy1-D1e</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3786
<i>Psy1-D1f</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3786
<i>Psy1-D1g</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3711
<i>Psy1-D1h</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3823
<i>Psy1-D1i</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	3786
<i>Psy1-D1j</i>	AGATCAAGAGGGCGAGGATGTTCTTCGAGGAGGCGGAGCGAGGGGTGACTGAGCTTAGGAAGGAGAGCCG	2743
<i>Psy1-D1a</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	3856
<i>Psy1-D1b</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	2470
<i>Psy1-D1c</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	2470
<i>Psy1-D1d</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	2470
<i>Psy1-D1e</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	3856
<i>Psy1-D1f</i>	GTGGCCGGTAAGTGCCTAAAGCCACGACTTGAATGTGAAACAAAACACTACATATAGATCTCTCATCATTG	3856

Fig. A3. (Continued).

<i>Psy1-D1g</i>	GTGGCCGGTAAGTGCCCTAAGCCACGACTTGGATGTGAAACAAAACACATATAGATCTCTCATCATTG	3781
<i>Psy1-D1h</i>	GTGGCCGGTAAGTGCCCTAAAGCCACGACTTGAATGTGAAACAAAACACATATAGATCTCTCATCATTG	3893
<i>Psy1-D1i</i>	GTGGCCGGTAAGTGCCCTAAAGCCACGACTTGAATGTGAAACAAAACACATATAGATCTCTCATCATTG	3856
<i>Psy1-D1j</i>	GTGGCCGGTAAGTGCCCTAAAGCCACGACTTGAATGTGAAACAAAACACATATAGATCTCTCATCATTG	2813
<i>Psy1-D1a</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3926
<i>Psy1-D1b</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	2540
<i>Psy1-D1c</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	2540
<i>Psy1-D1d</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	2539
<i>Psy1-D1e</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3926
<i>Psy1-D1f</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3926
<i>Psy1-D1g</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3851
<i>Psy1-D1h</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3963
<i>Psy1-D1i</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	3926
<i>Psy1-D1j</i>	TTAATTATCAGTAGCAAAAATGATGCTACGTGTAGTTCATGGGGGTCGCCTCCACACCTTGGTATAAT	2883
<i>Psy1-D1a</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	3996
<i>Psy1-D1b</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	2609
<i>Psy1-D1c</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	2609
<i>Psy1-D1d</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	2608
<i>Psy1-D1e</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	3996
<i>Psy1-D1f</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	3996
<i>Psy1-D1g</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	3921
<i>Psy1-D1h</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	4033
<i>Psy1-D1i</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	3996
<i>Psy1-D1j</i>	AATCATTGAAAAAAATTAGGGGCTCAAATGGAAGATAAATATGGTTTGCATTGCATTGCAATTGCAGGT	2953
<i>Psy1-D1a</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	4066
<i>Psy1-D1b</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	2679
<i>Psy1-D1c</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	2679
<i>Psy1-D1d</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	2678
<i>Psy1-D1e</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	4066
<i>Psy1-D1f</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	4066
<i>Psy1-D1g</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	3991
<i>Psy1-D1h</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	4103
<i>Psy1-D1i</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	4066
<i>Psy1-D1j</i>	TTGGGCTCTCTGTTGTTGTACCGGCAGATCCTCGATGAGATCGAAGCGAATGACTACAACAACCTTCACC	3023
<i>Psy1-D1a</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4136
<i>Psy1-D1b</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	2749
<i>Psy1-D1c</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	2749
<i>Psy1-D1d</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	2748
<i>Psy1-D1e</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4136
<i>Psy1-D1f</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4136
<i>Psy1-D1g</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4061
<i>Psy1-D1h</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4173
<i>Psy1-D1i</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	4136
<i>Psy1-D1j</i>	AAGAGGGCCTATGTTGGGAAGGCGAAGAAGGTGCTTGCCTCCCTGTCGCGTACGGGAGATCGCTGCTCT	3093
<i>Psy1-D1a</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4168
<i>Psy1-D1b</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	2781
<i>Psy1-D1c</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	2781
<i>Psy1-D1d</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	2780
<i>Psy1-D1e</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4168
<i>Psy1-D1f</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4168
<i>Psy1-D1g</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4093
<i>Psy1-D1h</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4205
<i>Psy1-D1i</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	4168
<i>Psy1-D1j</i>	TACCGTATTCAGTACGAGAAATAACCAGACCTAG	3125

Fig. A3. (Continued).