

Table S-3 Gene predictions for neurotransmitters, transporters and receptors

Gene Number	Gene Name or Synonym	Gene Characteristics
<b>Serotonin pathway</b>		
SPU_003725	Sp-TPH	tryptophan 5-hydroxylase
SPU_021931	Sp-AADC	aromatic amino acid decarboxylase
SPU_022382	Sp-SERT	serotonin transporter
SPU_018826	Sp-5HT1A	serotonin receptor 1A
SPU_017918	Sp-5HT1F	serotonin receptor 1F
SPU_025436	Sp-5HT2C	serotonin receptor 2C
SPU_005097	Sp-5HT7	serotonin receptor 7
<b>Dopamine pathway</b>		
SPU_000836	Sp-TH	tyrosine hydroxylase
SPU_021931	Sp-AADC	aromatic amino acid decarboxylase
SPU_011320	Sp-DRD1	dopamine receptor D1
SPU_028351	Sp-DRD1	dopamine receptor D1
SPU_022683	Sp-DRD1	dopamine receptor D1
SPU_022684	Sp-DRD1	dopamine receptor D1
SPU_023252	Sp-DRD2	dopamine receptor D2
SPU_024900	Sp-DRD2	dopamine receptor D2
<b>Adrenaline pathway</b>		
SPU_022703	Sp-DBH	dopamine $\beta$ -hydroxylase
SPU_008370	Sp-DBH	dopamine $\beta$ -hydroxylase
SPU_022506	Sp-SLC6A2	noradrenaline transporter
SPU_000971	Sp-SLC6A2	noradrenaline transporter
SPU_021588	Sp-ADR1A	adrenaline receptor 1A
<b>GABA pathway</b>		
SPU_002857	Sp-GAD	glutamic acid decarboxylase
SPU_006561	Sp-GAT	GABA transporter
SPU_001698	Sp-GAT	GABA transporter
SPU_000076	Sp-GAT	GABA transporter
SPU_003711	Sp-GAT	GABA transporter
SPU_028560	Sp-GABRA	GABA receptor A (N-terminus)
SPU_025266		GABA receptor A (C-terminus)
<b>Acetylcholine pathway</b>		
SPU_024249	Sp-ChAT	choline acetyltransferase
SPU_006123	Sp-AChE	acetylcholinesterase
SPU_000154	Sp-AChE	acetylcholinesterase (missing N-terminus)
SPU_002589	Sp-AChE	acetylcholinesterase
SPU_004183	Sp-AChE	acetylcholinesterase
SPU_002605	Sp-AChE	acetylcholinesterase
SPU_020107	Sp-AChE	acetylcholinesterase (missing N-terminus)
SPU_019203	Sp-AChE	acetylcholinesterase
SPU_022763	Sp-AChE	acetylcholinesterase
SPU_012184	Sp-AChE	acetylcholinesterase (missing N-terminus)
SPU_006161	Sp-VACHT	vesicular acetylcholine transporter
SPU_019709	Sp-nAChR alpha2	cholinergic receptor, nicotinic, alpha 2
SPU_001774	Sp-nAChR alpha2	cholinergic receptor, nicotinic, alpha 2
SPU_002737	Sp-nAChR alpha2	cholinergic receptor, nicotinic, alpha 2
SPU_023216	Sp-nAChR alpha3	cholinergic receptor, nicotinic, alpha 3
SPU_018204	Sp-nAChR alpha3	cholinergic receptor, nicotinic, alpha 3
SPU_019711	Sp-nAChR alpha4	cholinergic receptor, nicotinic, alpha 4
SPU_019710	Sp-nAChR alpha4	cholinergic receptor, nicotinic, alpha 4
SPU_021159	Sp-nAChR alpha6	cholinergic receptor, nicotinic, alpha 6
SPU_013095	Sp-nAChR alpha7	cholinergic receptor, nicotinic, alpha 7
SPU_005670	Sp-nAChR alpha9	cholinergic receptor, nicotinic, alpha 9
SPU_021158	Sp-nAChR alpha10	cholinergic receptor, nicotinic, alpha 10
SPU_012979	Sp-mAChR M3	cholinergic receptor, muscarinic, M3
SPU_002875	Sp-mAChR M3	cholinergic receptor, muscarinic, M3
SPU_019228	Sp-mAChR M4	cholinergic receptor, muscarinic, M4
SPU_016177	Sp-mAChR M5	cholinergic receptor, muscarinic, M5
<b>Histamine pathway</b>		
SPU_010021	Sp-HDC	histidine decarboxylase
SPU_000288	Sp-HDC	histidine decarboxylase
SPU_022857	Sp-HRH1	histamine receptor H1
SPU_009766	Sp-HRH2	histamine receptor H2
SPU_013107	Sp-HRH2	histamine receptor H2
<b>Glycine pathway</b>		
SPU_017211	Sp-GlyRA1	glycine receptor alpha1
SPU_023734	Sp-GlyRA2	glycine receptor alpha2