

## SLC18 – Vesicular amine transporter family

Human gene name	Protein name	Aliases	Predominant substrates	Transport type / coupling ions	Tissue distribution and cellular / subcellular expression	Link to disease	Human gene locus	Sequence accession ID	Splice variants and their features
<a href="#">SLC18A1</a>	VMAT1	CGAT, VAT1	5HT, dopamine, adrenaline, noradrenaline, histamine	E / H <sup>+</sup>	adrenal medulla, sympathetic ganglia, carotid body, Merkel cells in skin, EC cells in GI tract; subcellular: large dense-core vesicles	(schizophrenia)	8p21.3	<a href="#">NM_003053</a>	4 splice variants
<a href="#">SLC18A2</a>	VMAT2	SVAT, SVMT, VAT2	5HT, dopamine, adrenaline, noradrenaline, histamine	E / H <sup>+</sup>	brain, adrenal medulla, sympathetic ganglia, carotid body, intestine, stomach, pancreas, basophils, mast cells, dendritic cells, platelets; subcellular: large and small dense-core vesicles, dopaminergic vesicles	(drug addiction), (depression)	10q25	<a href="#">NM_003054</a>	
<a href="#">SLC18A3</a>	VACht		acetylcholine	E / H <sup>+</sup>	brain, peripheral nervous system, intestine; subcellular: small synaptic vesicles	(myasthenic syndromes)	10q11.2	<a href="#">NM_003055</a>	

### References:

*Original version of the SLC table:*

[Eiden LE, Schafer MK, Weihe E, Schutz B.](#) The vesicular amine transporter family (SLC18): amine/proton antiporters required for vesicular accumulation and regulated exocytotic secretion of monoamines and acetylcholine. *Pflugers Arch.* 2004 Feb;447(5):636-40.