

SLC23 – Na⁺-dependent ascorbic acid 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
SLC23A1 [§]	SVCT1	YSPL3, NCBT2, MGC22361	L-ascorbic acid	C / Na ⁺	epithelial tissues including kidney, intestines, liver, lung, skin		5q31.2-q31.3	NM_005847 NM_152685	variant 2 uses an in-frame alternative donor splice site at one of the internal coding exons compared to variant 1, resulting in an isoform b with 4 additional aa compared to isoform a
SLC23A2 [§]	SVCT2	YSPL2, KIAA0238, NBTL1, NCBT1	L-ascorbic acid	C / Na ⁺	widespread including brain (neurons), retina, placenta, spleen, prostate, testis, ovary, (rat Svct2 also in lung, adrenal, osteoblast)		20p13	NM_005116 NM_203327	variant 2 differs in the 5'UTR compared to variant 1 (encodes same isoform)
SLC23A3	SVCT3	YSPL1, FLJ31168, E2BP3					2q35	NM_144712 NM_001144889 NM_001144890	3 splice variants
SLC23A4P	SVCT4						7q33	NG_006548	pseudogene

§ The HUGO gene names for SVCT1 and SVCT2 were reassigned in 2003.

*) C: Cotransporter; E: Exchanger; F: Facilitated transporter; O: Orphan transporter

References:

Original version of the SLC table:

[Takanaga H, Mackenzie B, Hediger MA.](#) Sodium-dependent ascorbic acid transporter family SLC23. Pflugers Arch. 2004 Feb;447(5):677-82

Questions & Comments