

SLC35 – Nucleotide-sugar 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
SLC35A1	CST	CMPST	CMP-sialic acid	E / CMP	ubiquitous / Golgi	congenital disorder of glycosylation II f	6q15	NM_006416.4	
SLC35A2	UGT	UGAT, UGTL, UGALT, UGT1, UGT2	UDP-galactose, UDP-N-acetylgalactosamine	E / UMP	ubiquitous / Golgi		Xp11.23-p11.22	NM_005660 NM_001032289 NM_001042498	two isoforms with different C-termini: hUGT1 and hUGT2
SLC35A3		DKFZp781P1297	UDP-N-acetylglucosamine	E / UMP	ubiquitous / Golgi		1p21	NM_012243	
SLC35A4		MGC2541			ubiquitous		5q31.3	NM_080670	
SLC35A5		FLJ11130, FLJ20730, FLJ25973, DKFZp434E102			ubiquitous		3q13.12	NM_017945	
SLC35B1		UGTREL1			ubiquitous		17q21.33	NM_005827	
SLC35B2	PAPST1	UGTrel4, SLL	PAPS		ubiquitous		6p12.1-p11.2	NM_178148.2	
SLC35B3	PAPST2	CGI-19, C6orf196	PAPS		ubiquitous		6p24.3	NM_015948.3 NM_001142540 NM_001142541	
SLC35B4	YEA	YEA4, FLJ14697	UDP-xylose, UDP-N-acetylglucosamine		ubiquitous		7q33	NM_032826.4	
SLC35C1	FUCT1	FLJ11320, FLJ14841	GDP-fucose	E / GMP	ubiquitous / Golgi	congenital disorder of glycosylation II c	11p11.2	NM_018389.4 NM_001145265 NM_001145266	two variants use alternate 5' splice pattern and downstream start codon: isoforms have shorter N-terminus
SLC35C2	OVCOV1	CGI-15, C20orf5, FLJ37039, FLJ46434, MGC20633, MGC32079, MGC39183, BA394O2.1			ubiquitous		20q13.12	NM_015945 NM_173073 NM_173179	
SLC35D1	UGTREL7	KIAA0260, MGC138236	UDP-glucuronic acid, UDP-N-acetylgalactosamine	E /	ubiquitous / ER	Schneckenbecken dysplasia	1p32-p31	NM_015139.2	
SLC35D2	HFRC1	UGTrel8, Hfrc, SQV7L, MGC117215, MGC142139			ubiquitous / Golgi		9q22.32	NM_007001.2	
SLC35D3	FRCL1	MGC102873, bA55K22.3			retina		6q23.3	NM_001008783	
SLC35E1		FLJ14251, FLJ36689, MGC44954, DKFZp564G0462			ubiquitous		19p13.11	NM_024881.4	
SLC35E2		FLJ34996, FLJ44537, KIAA0447, MGC104754, MGC117254, MGC126715, MGC138494, DKFZp686M0869			ubiquitous		1p36.33	NM_182838	
SLC35E3		BLOV1			ubiquitous		12q15	NM_018656	
SLC35E4		MGC129826			ubiquitous		22q12.2	NM_001001479.2	

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SLC35F1		C6orf169, FLJ13018, dJ230I3.1			brain		6q22.2-q22.31	NM_001029858.3	
SLC35F2		HSNOV1, FLJ13018, DKFZp667H1615			salivary gland		11q22.3	NM_017515.4	
SLC35F3		FLJ37712			cerebellum		1q42.2	NM_173508.2	
SLC35F4		C14orf36, FLJ37712, c14_5373			cerebellum		14q22.2	NM_001080455	
SLC35F5		FLJ22004			ubiquitous		2q14.1	NM_025181	

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

References:

Original version of the SLC table:

[Ishida N, Kawakita M.](#) Molecular physiology and pathology of the nucleotide sugar transporter family (SLC35). Pflugers Arch. 2004 Feb;447(5):768-75.