

## SLC35 – Nucleotide-sugar transporter family

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

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

\*) 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.