

SLC2 – Facilitative GLUT 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
SLC2A1	GLUT1		glucose, galactose, mannose, glucosamine	F	erythrocytes, brain, blood-brain barrier, blood-tissue barrier	paroxysmal exertion-induced dyskinesia, dystonia-18	1p35-31.3	NM_006516	
SLC2A2	GLUT2		glucose, galactose, fructose, mannose, glucosamine	F	liver, islet of Langerhans, intestine, kidney, brain	Fanconi-Bickel syndrome, (type 2 diabetes)	3q26.1-q26.2	NM_000340	
SLC2A3	GLUT3		glucose, galactose, mannose, xylose	F	brain (neurons), testis		12p13.3	NM_006931	
SLC2A3P1	GLUT3 pseudogene 1						5q35.1	NG_008263	
SLC2A3P2	GLUT3 pseudogene 2						1p31.3	NG_005841	
SLC2A3P4	GLUT3 pseudogene 4						8q21.3	NG_009577	
SLC2A4	GLUT4		glucose, glucosamine	F	adipose tissue (white and brown), skeletal and cardiac muscle	(type 2 diabetes)	17p13	NM_001042	
SLC2A5	GLUT5		fructose	F	small intestine, kidney		1p36.2	NM_003039	2 splice variants
SLC2A6	GLUT6	GLUT9	glucose	F	brain, spleen, leucocytes		9q34	NM_017585	2 splice variants
SLC2A7	GLUT7		glucose, fructose	F	small intestine, colon, testis, prostate		1p36.2	NM_207420	
SLC2A8	GLUT8	GLUTX1	glucose, fructose, galactose	F	testis, brain, adrenal gland, liver, spleen, brown adipose tissue, lung (intracellular)		9q33.3	NM_014580	
SLC2A9	GLUT9	GLUTX, URATv1	urate (glucose, fructose)		kidney, liver, small intestine, placenta, lung and leucocytes	renal hypouricemia	4p16-15.3	NM_020041 NM_001001290	2 splice variants
SLC2A10	GLUT10		glucose, galactose	F	heart, lung, brain, liver, skeletal muscle, pancreas, placenta and kidney	arterial tortuosity syndrome	20q13.1	NM_030777	
SLC2A11	GLUT11	GLUT10	glucose, fructose	F	heart, muscle		22q11.2	NM_030807 NM_001024938 NM_001024939	3 splice variants
SLC2A12	GLUT12	GLUT8	glucose	F	heart, prostate, skeletal muscle, placenta		6q23.2	NM_145176	
SLC2A13	HMIT	GLUT13	<i>myo</i> -inositol	C/H ⁺	brain, adipose tissue		12q12	NM_052885	
SLC2A14	GLUT14	SLC2A3P3		O	testis		12p13.31	NM_153449	
SLC2AXP1	(pseudogene)						2q11.2	NG_011411	

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

References:

Original version of the SLC table:

[Uldry M, Thorens B](#). The SLC2 family of facilitated hexose and polyol transporters. Pflugers Arch. 2004 Feb;447(5):480-9

Questions & Comments