

SLC19 – Folate/thiamine 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
SLC19A1	RFC1	REFC, FOLT, IFC1, CHMD	<i>N</i> ⁵ -methyltetrahydrofolate	E / organic ions	ubiquitous / plasma membrane, also in mitochondrial membrane	methotrexate resistance	21q22.3	NM_194255	
SLC19A2	ThTr1	ThT1, TC1, TRMA	thiamine		ubiquitous / plasma membrane	thiamine-responsive megaloblastic anemia syndrome	1q23.3	NM_006996	
SLC19A3	ThTr2		thiamine		ubiquitous / plasma membrane	biotin-responsive basal ganglia disease, thiamine-responsive encephalopathy	2q37	NM_025243	

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

References:

Original version of the SLC table:

[Ganapathy V, Smith SB, Prasad PD.](#) SLC19: the folate/thiamine transporter family. *Pflugers Arch.* 2004 Feb;447(5):641-6.

Questions & Comments