

SLC15 – Proton oligopeptide cotransporter 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
SLC15A1	PEPT1	oligopeptide transporter 1, H+/peptide transporter 1, HPEPT1, HPECT1	di-, and tripeptides, protons (beta-lactam antibiotics)	C / H ⁺	intestine, kidney, apical, lysosomal membrane	none, (SNP in inflammatory bowel disease)	13q33-q34	NM_005073	hPEPT1-RF shift of pH sensitivity profile
SLC15A2	PEPT2	oligopeptide transporter 2, H+/peptide transporter 2, FLJ33407	di-, and tripeptides, protons	C / H ⁺	kidney, lung, brain, mammary gland, bronchial epithelium	none	3q13.3-q21	NM_021082	
SLC15A3	PHT2, hPTR3	peptide/histidine transporter 2, human peptide transporter 3, OCTP, FLJ26631	histidine, di- and tripeptides, protons	C / H ⁺	lung, spleen, thymus (faintly in brain, liver, adrenal gland, heart)	none	11q12.2	NM_016582	multiple, features unknown
SLC15A4	PHT1, PTR4	peptide/histidine transporter 1, peptide transporter 4	histidine, di- and tripeptides, protons	C / H ⁺	brain, retina, placenta	none	12q24.32	NM_145648	multiple, features unknown

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

References:

Original version of the SLC table:

[Daniel H. Kottra G.](#) The proton oligopeptide cotransporter family SLC15 in physiology and pharmacology. Pflugers Arch. 2004 Feb;447(5):610-8.

Questions & Comments