

## SLC30 – Zinc efflux family

Human gene name	Protein name	Aliases	Prominent substrate <sup>#)</sup>	Transport type / coupling ions	Tissue distribution and cellular / subcellular expression <sup>#)</sup>	Link to disease <sup>#)</sup>	Human gene locus	Sequence accession ID
<a href="#">SLC30A1</a>	ZNT1	ZRC1	zinc	unknown	widespread <sup>A</sup> , basolateral membrane of enterocytes / plasma membrane	embryonic lethal <sup>B</sup> , Alzheimer's	1q32.3	<a href="#">NM_021194</a>
<a href="#">SLC30A2</a>	ZNT2		zinc	unknown	widespread <sup>A</sup> , mammary gland	milk zinc content	1p35.3	<a href="#">NM_001004434</a> endosomes / secretory vesicles <a href="#">NM_032513</a> plasma membrane
<a href="#">SLC30A3</a>	ZNT3		zinc	unknown	glutamatergic neurons / synaptic micro-vesicles	seizures, Alzheimer's <sup>B</sup>	2p23.3	<a href="#">NM_003459</a>
<a href="#">SLC30A4</a>	ZNT4	Dri27	zinc	unknown	widespread <sup>A</sup> , secretory glands	lethal milk <sup>B</sup>	15q21.1	<a href="#">NM_013309</a>
<a href="#">SLC30A5</a>	ZNT5	ZTL1, ZNTL1, hZTL1	zinc <sup>C</sup>	unknown	widespread, b cells	bone abnormalities, heart failure <sup>B</sup>	5q13.1	<a href="#">NM_022902</a> <a href="#">NM_024055</a>
<a href="#">SLC30A6</a>	ZNT6		zinc <sup>C</sup>	unknown	widespread <sup>A</sup>		2p22.3	<a href="#">NM_017964</a>
<a href="#">SLC30A7</a>	ZNT7	ZNTL2	zinc	unknown	widespread <sup>A</sup>		1p21.2	<a href="#">NM_133496.4</a>
<a href="#">SLC30A8</a>	ZNT8		unknown	unknown	brain, liver, pancreas beta cells (secretory granules)	diabetes	8q24.11	<a href="#">NM_173851</a>
<a href="#">SLC30A9C</a>	ZNT9	C4orf1, GAC63, HUEL	unknown	O	unknown		4p13	<a href="#">NM_006345</a>
<a href="#">SLC30A10</a>	ZNT10	ZRC1					1q41	<a href="#">NM_018713</a>

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

#) A: From RNA analysis in rodents, B: In mice, C: By association only, no zinc-dependent phenotypes described in mammalian cells

### References:

*Original version of the SLC table:*

[Palmiter RD, Huang L.](#) Efflux and compartmentalization of zinc by members of the SLC30 family of solute carriers. *Pflugers Arch.* 2004 Feb;447(5):744-51

*Recent review:*

[Lichten LA, Cousins RJ.](#) Mammalian zinc transporters: nutritional and physiologic regulation. *Annu Rev Nutr.* 2009;29:153-76.

Questions & Comments