Recombinant Mouse Slc3a2 Protein, Myc/DDK-tagged

Cat. No. Slc3a2-5933M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2 (Slc3a2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Component of several heterodimeric amino acid transporter complexes. The precise substrate specificity depends on the other subunit in the heterodimer. The heterodimer with SLC3A2 functions as sodium-independent, high-affinity transporter that mediates uptake of large neutral amino acids such as phenylalanine, tyrosine, L-DOPA, leucine, histidine, methionine and tryptophan. The complexes with SLC7A6 and SLC7A7 mediate uptake of dibasic amino acids. The complexes function as amino acid exchangers. Required for targeting of SLC7A5 and SLC7A8 to the plasma membrane and for channel activity. Plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. The heterodimer with SLC7A5/LAT1 may play a role in the transport of L-DOPA across the blood-brain barrier (Probable). May mediate blood-to-retina L-leucine transport across the inner blood-retinal barrier. The heterodimer with SLC7A5/LAT1 can mediate the transport of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane. When associated with SLC7A5 or SLC7A8, involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane. The heterodimer with SLC7A5

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	is involved in the uptake of toxic methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes. Together with ICAM1, regulates the transport activity SLC7A8 in polarized intestinal cells, by generating and delivering intracellular signals. When associated with LAPTM4B, the heterodimer formed by SLC3A2 and SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation.
Molecular Mass	58.3 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Slc3a2 solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2 [Mus musculus (house mouse)]
Official Symbol	Slc3a2
Synonyms	SLC3A2; solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2; 4F2 cell-surface antigen heavy chain; CD98 antigen; CD98 heavy chain; type II transmembrane protein; antigen identified by monoclonal antibodies 4F2; 4F2; Cd98; Ly10; Mdu1; 4F2HC; Ly-10; NACAE; Ly-m10; Mgp-2hc;

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	AI314110
Gene ID	17254
mRNA Refseq	NM_008577
Protein Refseq	NP_032603
UniProt ID	P10852

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