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Product Information

Recombinant Anti-Human slc3a2 Antibody

Cat. No.: **MOM-18323**
This product is for research use only and is not intended for diagnostic use.

Product Overview

Recombinant Mouse Antibody binds selectively to Human SLC3A2, expressed in Chinese Hamster Ovary cells(CHO)

Antigen Description

Required for the function of light chain amino-acid transporters. Involved in sodium-independent, high-affinity transport of large neutral amino acids such as phenylalanine, tyrosine, leucine, arginine and tryptophan. Involved in guiding and targeting of LAT1 and LAT2 to the plasma membrane. When associated with SLC7A6 or SLC7A7 acts as an arginine/glutamine exchanger, following an antiport mechanism for amino acid transport, influencing arginine release in exchange for extracellular amino acids. Plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. Required for normal and neoplastic cell growth. When associated with SLC7A5/LAT1, is also involved in the transport of L-DOPA across the blood-brain barrier, and that of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane in tissues such as placenta. Involved in the uptake of methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes, and hence plays a role in metal ion homeostasis and toxicity. 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. Together with ICAM1, regulates the transport activity LAT2 in polarized intestinal cells, by generating and delivering intracellular signals. When associated with SLC7A5, plays an important role in transporting L-leucine from the circulating blood to the retina across the inner blood-retinal barrier.

Specific Activity

Tested positive against native antigen.

Target

SLC3A2

Immunogen

Tissue / cell preparation (Human). HOON pre B leukaemia cell line.

Source

Mouse

Species Reactivity

Human

Type

IgG

Expression Host

CHO

Purity

Purity >95% by SDS-PAGE.

Applications

Suitable for use in IP, IF, FuncS, FC, Neut and most other immunological methods.

Storage

4°C. For long term storage, aliquot and store at -20°C. Repeated thawing and freezing must be avoided.

ANTIGEN GENE INFOMATION

Gene Name

SLC3A2 solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2 [Homo sapiens]

Official Symbol

SLC3A2

Synonyms

SLC3A2; solute carrier family 3 (activators of dibasic and neutral amino acid transport), member 2; MDU1; 4F2 cell-surface antigen heavy chain; 4F2; 4F2 cell surface antigen heavy chain; 4F2 heavy chain; 4F2HC; 4T2HC; antigen defined by monoclonal 4F2; antigen identified by monoclonal antibodies 4F2; TRA1.10; TROP4; and T43; CD98; CD98 heavy chain; CD98HC; heavy chain; lymphocyte activation antigen 4F2 large subunit; monoclonal 44D7; NACAE; antigen defined by monoclonal 4F2, heavy chain; antigen identified by monoclonal antibodies 4F2, TRA1.10, TROP4, and T43

Gene ID

6520

mRNA Refseq

NM_001012662

Protein Refseq

NP_001012680

MIM

158070

UniProt ID

P08195

Chromosome Location

11q12-q22

Pathway

Amino acid transport across the plasma membrane, organism-specific biosystem; Basigin interactions, organism-specific biosystem; Calcineurin-regulated NFAT-dependent transcription in lymphocytes, organism-specific biosystem; Cell surface interactions at the vascular wall, organism-specific biosystem; Hemostasis, organism-specific biosystem; Protein digestion and absorption, organism-specific biosystem; Protein digestion and absorption, conserved biosystem;

Function

calcium:sodium antiporter activity; catalytic activity; cation binding; neutral amino acid transmembrane transporter activity; protein binding;

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