SLC3A2 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	SLC3A2, Blocking Peptide
Full Product Name	SLC3A2 Blocking Peptide
Product Gene Name	SLC3A2 blocking peptide
Product Synonym Names	4F2; 4F2 cell surface antigen heavy chain; 4F2 cell-surface antigen heavy chain; 4F2 heavy chain; 4F2 heavy chain antigen; 4F2_HUMAN; 4F2hc; 4T2HC; Antigen defined by monoclonal antibody 4F2 heavy chain; Antigen identified by monoclonal antibodies 4F2 TRA1.10 TROP4 and T43; CD 98; CD98; CD98 antigen; CD98 heavy chain; CD98HC; Heavy chain; Lymphocyte activation antigen 4F2 large subunit; MDU 1; MDU1; Monoclonal antibody 44D7; NACAE; Slc3a2; Solute carrier family 3 (activators of dibasic and neutral amino acid transport) member 2; Solute carrier family 3 member 2
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	SLC3A2 peptide (MBS9626816) is used for blocking the activity of SLC3A2 antibody (MBS9608104)
Molecular Weight	71,123 Da
OMIM	J02939 mRNA
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for SLC3A2 blocking peptide	Blocking/Control
Related Product Information for SLC3A2 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of SLC3A2 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SLC3A2 purchase	MBS9626816 is a blocking peptide targeting SLC3A2.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SLC3A2. It may not necessarily be applicable to this product.

NCBI GI #	61744477
NCBI GeneID	6520
NCBI Accession #	NP_001012680.1

UniProt Primary Accession #	P08195
UniProt Secondary Accession #	Q13543
UniProt Related Accession #	P08195
GenBank Nucleotide #	NM_001012662.2
NCBI Official Full Name	4F2 cell-surface antigen heavy chain isoform b
NCBI Official Synonym Full Names	solute carrier family 3 (amino acid transporter heavy chain), member 2
NCBI Official Symbol	SLC3A2
NCBI Official Synonym Symbols	4F2; CD98; MDU1; 4F2HC; 4T2HC; NACAE; CD98HC
UniProt Protein Name	4F2 cell-surface antigen heavy chain
UniProt Synonym Protein Names	4F2 heavy chain antigen; Lymphocyte activation antigen 4F2 large subunit; Solute carrier family 3 member 2; CD_antigen: CD98
Protein Family	4F2 cell-surface antigen
UniProt Gene Name	SLC3A2
UniProt Synonym Gene Names	MDU1; 4F2hc
NCBI Protein Information	4F2 cell-surface antigen heavy chain; CD98 heavy chain; antigen defined by monoclonal antibody 4F2, heavy chain; antigen identified by monoclonal antibodies 4F2, TRA1.10, TROP4, and T43; lymphocyte activation antigen 4F2 large subunit; monoclonal antibody
NCBI Summary for SLC3A2	This gene is a member of the solute carrier family and encodes a cell surface, transmembrane protein. The protein exists as the heavy chain of a heterodimer, covalently bound through di-sulfide bonds to one of several possible light chains. The encoded transporter plays a role in regulation of intracellular calcium levels and transports L-type amino acids. Alternatively spliced transcript variants, encoding different isoforms, have been characterized. [provided by RefSeq, Nov 2010]
UniProt Comments for SLC3A2	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. When associated with LAPTM4B, recruits SLC3A2 and SLC7A5 to lysosomes to promote leucine uptake into these organelles and is required for mTORC1 activation (PubMed:25998567).
Research Articles on SLC3A2	**1.** observed a correlation between less differentiated and more aggressive clear cell renal cell cancer and CD98hc expression; found that CD98hc is not only a descriptive marker for aggressive cancers, but bears a major regulatory role of malignant cell function
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/blocking-peptide/slc3a2/9626816