

**SLC3A2 Antibody (C-term) Blocking peptide**  
Synthetic peptide  
Catalog # BP10152b**Specification**

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**SLC3A2 Antibody (C-term) Blocking peptide - Product Information**

Primary Accession [P08195](#)  
Other Accession [NP\\_001012681.1](#), [NP\\_001012679.1](#),  
[NP\\_002385.3](#), [NP\\_001012680.1](#),  
[NP\\_001013269.1](#), [NP\\_001012682.1](#)

**SLC3A2 Antibody (C-term) Blocking peptide - Additional Information**

Gene ID 6520

**Other Names**

4F2 cell-surface antigen heavy chain, 4F2hc, 4F2 heavy chain antigen, Lymphocyte activation antigen 4F2 large subunit, Solute carrier family 3 member 2, CD98, SLC3A2, MDU1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**SLC3A2 Antibody (C-term) Blocking peptide - Protein Information**

Name SLC3A2 ([HGNC:11026](#))

Synonyms MDU1

**Function**

Acts as a chaperone that facilitates biogenesis and trafficking of functional transporters heterodimers to the plasma membrane. Forms heterodimer with SLC7 family transporters (SLC7A5, SLC7A6, SLC7A7, SLC7A8, SLC7A10 and SLC7A11), a group of amino-acid antiporters (PubMed: [10574970](http://www.uniprot.org/citations/10574970), PubMed: [10903140](http://www.uniprot.org/citations/10903140), PubMed: [11557028](http://www.uniprot.org/citations/11557028), PubMed: [30867591](http://www.uniprot.org/citations/30867591), PubMed: [33298890](http://www.uniprot.org/citations/33298890), PubMed: [33758168](http://www.uniprot.org/citations/33758168), PubMed: [34880232](http://www.uniprot.org/citations/34880232), PubMed: [9751058](http://www.uniprot.org/citations/9751058), PubMed: [9829974](http://www.uniprot.org/citations/9829974)),

PubMed:<a href="http://www.uniprot.org/citations/9878049" target="\_blank">9878049</a>). Heterodimers function as amino acids exchangers, the specificity of the substrate depending on the SLC7A subunit. Heterodimers SLC3A2/SLC7A6 or SLC3A2/SLC7A7 mediate the uptake of dibasic amino acids (PubMed:<a href="http://www.uniprot.org/citations/10903140" target="\_blank">10903140</a>, PubMed:<a href="http://www.uniprot.org/citations/9829974" target="\_blank">9829974</a>). Heterodimer SLC3A2/SLC7A11 functions as an antiporter by mediating the exchange of extracellular anionic L-cystine and intracellular L-glutamate across the cellular plasma membrane (PubMed:<a href="http://www.uniprot.org/citations/34880232" target="\_blank">34880232</a>). SLC3A2/SLC7A10 translocates small neutral L- and D- amino acids across the plasma membrane (By similarity). SLC3A2/SLC75 or SLC3A2/SLC7A8 translocates neutral amino acids with broad specificity, thyroid hormones and L-DOPA (PubMed:<a href="http://www.uniprot.org/citations/10574970" target="\_blank">10574970</a>, PubMed:<a href="http://www.uniprot.org/citations/11389679" target="\_blank">11389679</a>, PubMed:<a href="http://www.uniprot.org/citations/11557028" target="\_blank">11557028</a>, PubMed:<a href="http://www.uniprot.org/citations/11564694" target="\_blank">11564694</a>, PubMed:<a href="http://www.uniprot.org/citations/11742812" target="\_blank">11742812</a>, PubMed:<a href="http://www.uniprot.org/citations/12117417" target="\_blank">12117417</a>, PubMed:<a href="http://www.uniprot.org/citations/12225859" target="\_blank">12225859</a>, PubMed:<a href="http://www.uniprot.org/citations/12716892" target="\_blank">12716892</a>, PubMed:<a href="http://www.uniprot.org/citations/15980244" target="\_blank">15980244</a>, PubMed:<a href="http://www.uniprot.org/citations/30867591" target="\_blank">30867591</a>, PubMed:<a href="http://www.uniprot.org/citations/33298890" target="\_blank">33298890</a>, PubMed:<a href="http://www.uniprot.org/citations/33758168" target="\_blank">33758168</a>). SLC3A2 is essential for plasma membrane localization, stability, and the transport activity of SLC7A5 and SLC7A8 (PubMed:<a href="http://www.uniprot.org/citations/10391915" target="\_blank">10391915</a>, PubMed:<a href="http://www.uniprot.org/citations/10574970" target="\_blank">10574970</a>, PubMed:<a href="http://www.uniprot.org/citations/11311135" target="\_blank">11311135</a>, PubMed:<a href="http://www.uniprot.org/citations/15769744" target="\_blank">15769744</a>, PubMed:<a href="http://www.uniprot.org/citations/33066406" target="\_blank">33066406</a>). When associated with LAPT4B, the heterodimer SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation (PubMed:<a href="http://www.uniprot.org/citations/25998567" target="\_blank">25998567</a>). Modulates integrin-related signaling and is essential for integrin-dependent cell spreading, migration and tumor progression (PubMed:<a href="http://www.uniprot.org/citations/11121428" target="\_blank">11121428</a>, PubMed:<a href="http://www.uniprot.org/citations/15625115" target="\_blank">15625115</a>).

### Cellular Location

Apical cell membrane. Cell membrane; Single-pass type II membrane protein. Cell junction {ECO:0000250|UniProtKB:P10852}. Lysosome membrane. Melanosome. Basolateral cell membrane {ECO:0000250|UniProtKB:P10852}. Note=Localized at the plasma membrane when associated with SLC7A5/LAT1 or SLC7A8/LAT2 (PubMed:11311135, PubMed:9751058). Localized to the apical membrane of placental syncytiotrophoblastic cells (PubMed:11742812). Recruited to lysosomes by LAPT4B (PubMed:25998567). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065) Located selectively at cell-cell adhesion sites (By similarity) Colocalized with SLC7A8/LAT2 at the basolateral membrane of kidney proximal tubules and small intestine epithelia. Expressed in both luminal and abluminal membranes of brain capillary endothelial cells (By similarity). {ECO:0000250|UniProtKB:P10852, ECO:0000269|PubMed:11311135, ECO:0000269|PubMed:11742812, ECO:0000269|PubMed:17081065, ECO:0000269|PubMed:25998567, ECO:0000269|PubMed:9751058}

### Tissue Location

Expressed ubiquitously in all tissues tested with highest levels detected in kidney, placenta and testis and weakest level in thymus. During gestation, expression in the placenta was significantly stronger at full-term than at the mid-trimester stage Expressed in HUVECS and at low levels in resting peripheral blood T- lymphocytes and quiescent fibroblasts. Also expressed in fetal liver and

in the astrocytic process of primary astrocytic gliomas. Expressed in retinal endothelial cells and in the intestinal epithelial cell line C2BBE1.

### **SLC3A2 Antibody (C-term) Blocking peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

### **SLC3A2 Antibody (C-term) Blocking peptide - Images**