

**YLAT2 Antibody (C-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP5300b****Specification**

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**YLAT2 Antibody (C-term) Blocking peptide - Product Information**

Primary Accession [O92536](#)  
Other Accession [NP\\_003974.3](#)

**YLAT2 Antibody (C-term) Blocking peptide - Additional Information**

**Gene ID** 9057

**Other Names**

Y+L amino acid transporter 2, Cationic amino acid transporter, y+ system, Solute carrier family 7 member 6, y(+)L-type amino acid transporter 2, Y+LAT2, y+LAT-2, SLC7A6 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=11064" target="\_blank">HGNC:11064</a>)

**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.

**YLAT2 Antibody (C-term) Blocking peptide - Protein Information**

**Name** SLC7A6 ([HGNC:11064](#))

**Function**

Heterodimer with SLC3A2, that functions as an antiporter which operates as an efflux route by exporting cationic amino acids such as L-arginine from inside the cells in exchange with neutral amino acids like L-leucine, L-glutamine and isoleucine, plus sodium ions and may participate in nitric oxide synthesis (PubMed:<a href="http://www.uniprot.org/citations/9829974" target="\_blank">9829974</a>, PubMed:<a href="http://www.uniprot.org/citations/10903140" target="\_blank">10903140</a>, PubMed:<a href="http://www.uniprot.org/citations/16785209" target="\_blank">16785209</a>, PubMed:<a href="http://www.uniprot.org/citations/31705628" target="\_blank">31705628</a>, PubMed:<a href="http://www.uniprot.org/citations/15756301" target="\_blank">15756301</a>, PubMed:<a href="http://www.uniprot.org/citations/11311135" target="\_blank">11311135</a>, PubMed:<a href="http://www.uniprot.org/citations/17329401" target="\_blank">17329401</a>, PubMed:<a href="http://www.uniprot.org/citations/14603368" target="\_blank">14603368</a>, PubMed:<a href="http://www.uniprot.org/citations/19562367" target="\_blank">19562367</a>). Also exchanges L-arginine with L-lysine in a sodium-independent manner (PubMed:<a href="http://www.uniprot.org/citations/10903140" target="\_blank">10903140</a>)

target="\_blank">10903140</a>). The transport mechanism is electroneutral and operates with a stoichiometry of 1:1 (PubMed:<a href="http://www.uniprot.org/citations/10903140" target="\_blank">10903140</a>). Contributes to ammonia-induced increase of L-arginine uptake in cerebral cortical astrocytes leading to ammonia-dependent increase of nitric oxide (NO) production via inducible nitric oxide synthase (iNOS) induction, and protein nitration (By similarity). May mediate transport of ornithine in retinal pigment epithelial (RPE) cells (PubMed:<a href="http://www.uniprot.org/citations/17197568" target="\_blank">17197568</a>). May also transport glycine betaine in a sodium dependent manner from the cumulus granulosa into the enclosed oocyte (By similarity).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Expressed in normal fibroblasts and those from LPI patients (PubMed:11078698). Also expressed in HUVECs, monocytes, RPE cells, and various carcinoma cell lines (PubMed:11742806, PubMed:14603368, PubMed:15280038, PubMed:17197568, PubMed:17329401) Expressed in brain, heart, testis, kidney, small intestine and parotis (PubMed:10903140). Highly expressed in T lymphocytes (PubMed:31705628)

#### **YLAT2 Antibody (C-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

#### **YLAT2 Antibody (C-term) Blocking peptide - Images**

#### **YLAT2 Antibody (C-term) Blocking peptide - Background**

This protein involved in the sodium-independent uptake of dibasic amino acids and sodium-dependent uptake of some neutral amino acids. It requires co-expression with SLC3A2/4F2hc to mediate the uptake of arginine, leucine and glutamine. It also acts as an arginine/glutamine exchanger, following an antiport mechanism for amino acid transport, influencing arginine release in exchange for extracellular amino acids. It plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. It involved in the transport of L-arginine in monocytes and reduces uptake of ornithine in retinal pigment epithelial (RPE) cells.

#### **YLAT2 Antibody (C-term) Blocking peptide - References**

Sekine, Y., et al. J. Am. Soc. Nephrol. 20(7):1586-1596(2009) Broer, S. Physiol. Rev. 88(1):249-286(2008) Xu, D., et al. Mol. Cell Proteomics 4(8):1061-1071(2005)