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YLAT2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5300b

Specification

YLAT2 Antibody (C-term) - Product Information

Application	**WB, FC,E**
Primary Accession	Q92536
Other Accession	NP_003974.3
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**56828**
Antigen Region	**487-515**

YLAT2 Antibody (C-term) - 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 (HGNC:11064)

Target/Specificity
This YLAT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 487-515 amino acids from the C-terminal region of human YLAT2.

Dilution
WB~~1:1000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
YLAT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

YLAT2 Antibody (C-term) - 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:9829974, PubMed:10903140, PubMed:16785209, PubMed:31705628, PubMed:15756301, PubMed:11311135, PubMed:17329401, PubMed:14603368, PubMed:19562367). Also exchanges L-arginine with L-lysine in a sodium-independent manner (PubMed:10903140). The transport mechanism is electroneutral and operates with a stoichiometry of 1:1 (PubMed:10903140). 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:17197568). 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

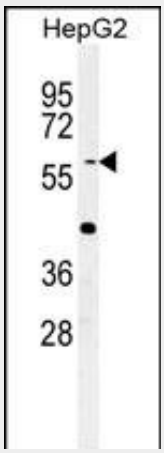
Tissue Location
Expressed in normal fibroblasts and those from LPI patients (PubMed:11078698). Also expressed in HUVECs, monocytes, RPE cells, and various carcinoma cell lines (PubMed:11742806, PubMed:14603368, PubMed:15280038, PubMed:17197568, PubMed:17329401) Expressed in brain, heart, testis, kidney,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

YLAT2 Antibody (C-term) - Protocols

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

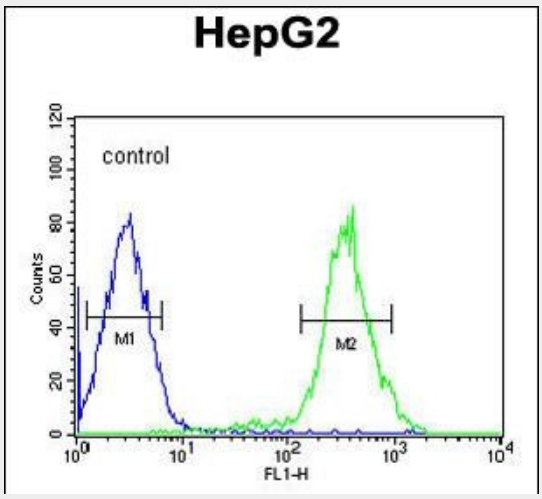
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

YLAT2 Antibody (C-term) - Images



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Western blot analysis of YLAT2 Antibody (C-term) (Cat. #AP5300b) in HepG2 cell line lysates (35ug/lane).YLAT2 (arrow) was detected using the purified Pab.



YLAT2 Antibody (C-term) (Cat. #AP5300b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

YLAT2 Antibody (C-term) - 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) - 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)