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YLAT2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5300b

Product Information

Application	WB, FC, E
Primary Accession	Q92536
Other Accession	NP_003974.3
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB26528
Calculated MW	56828
Antigen Region	487-515

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 E~~Use at an assay dependent concentration.
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.

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:10903140, PubMed:11311135, PubMed:14603368, PubMed:15756301, PubMed:16785209, PubMed:17329401, PubMed:19562367, PubMed:31705628, PubMed:9829974). 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)

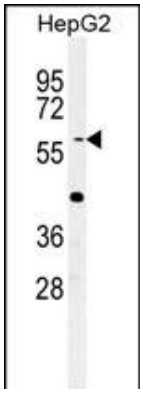
Background

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.

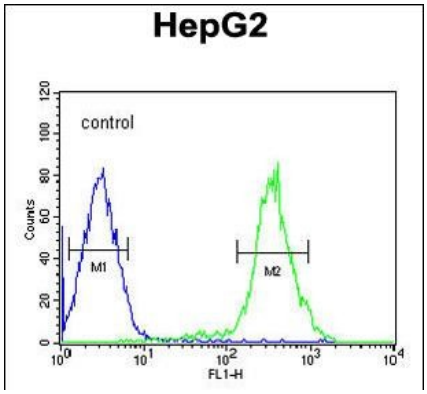
References

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)

Images



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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.