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Anti-LAT2 Antibody

Catalog # AP60187

Product Information

Application	WB
Primary Accession	Q9UHI5
Reactivity	Human, Mouse, Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58382

Additional Information

Gene ID	23428
Other Names	LAT2; Large neutral amino acids transporter small subunit 2; L-type amino acid transporter 2; hLAT2; Solute carrier family 7 member 8
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human LAT2. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	SLC7A8 (HGNC:11066)
Function	Associates with SLC3A2 to form a functional heterodimeric complex that translocates small and large neutral amino acids with broad specificity and a stoichiometry of 1:1. Functions as amino acid antiporter mediating the influx of extracellular essential amino acids mainly in exchange with the efflux of highly concentrated intracellular amino acids (PubMed:10391915, PubMed:11311135, PubMed:11847106, PubMed:12716892, PubMed:15081149, PubMed:15918515, PubMed:29355479, PubMed:33298890, PubMed:34848541). Has relatively symmetrical selectivities but strongly asymmetrical substrate affinities at both the intracellular and extracellular sides of the transporter (PubMed:11847106). This asymmetry allows SLC7A8 to regulate intracellular amino acid pools (mM concentrations) by exchange with external amino acids (uM concentration range), equilibrating the relative concentrations of different amino acids across the plasma membrane instead of mediating their net uptake (PubMed:10391915, PubMed:11847106). May play an essential role in the

reabsorption of neutral amino acids from the epithelial cells to the bloodstream in the kidney (PubMed:12716892). 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 (PubMed:12117417). Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane (PubMed:15769744). Imports the thyroid hormone diiodothyronine (T2) and to a smaller extent triiodothyronine (T3) but not rT 3 or thyroxine (T4) (PubMed:26305885). Mediates the uptake of L-DOPA (By similarity). May participate in auditory function (By similarity). Mediates the uptake of leucine and 3-iodo-L-tyrosine (MIT) (PubMed:26305885). Mediates the uptake of 3,5-diiodo-L-tyrosine (DIT) (PubMed:38661522).

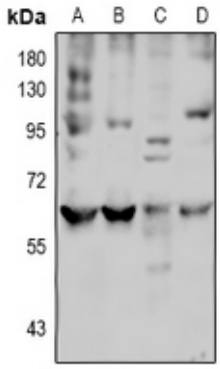
Cellular Location

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Note=Localized to the cytoplasm when expressed alone but when coexpressed with SLC3A2/4F2hc, is localized to the plasma membrane. Colocalized with SLC3A2/4F2hc at the basolateral membrane of kidney cortex proximal tubules and small intestine epithelia of the villi.

Tissue Location

Strongest expression is observed in kidney and moderate expression in placenta and brain, followed by liver, prostate, testis, ovary, lymph node, thymus, spleen, skeletal muscle and heart Also expressed in fetal liver as well as in the retinal pigment epithelial cell line ARPE-19 and the intestinal epithelial cell line Caco-2.

Images



Western blot analysis of LAT2 expression in HEK293T (A), HepG2 (B), mouse kidney (C), rat brain (D) whole cell lysates. (Predicted band size: 58 kD; Observed band size: 65 kD)

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