LAT2 Monoclonal Antibody

Catalog No	BYmab-07841
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	SLC7A8 LAT2
Protein Name	Large neutral amino acids transporter small subunit 2 (L-type amino acid transporter 2) (hLAT2) (Solute carrier family 7 member 8)
Immunogen	Synthesized peptide derived from part region of human protein
Specificity	LAT2 Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	58kD
Cell Pathway	Cytoplasm. Basolateral cell membrane; Multi-pass membrane protein. 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 Specificity	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.
Function	caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,function:Sodium-independent, high-affinity transport of small and large neutral amino acids such as alanine, serine, threonine, cysteine, phenylalanine, tyrosine, leucine, arginine and tryptophan, when associated with SLC3A2/4F2hc. Acts as an amino acid exchanger. Has higher affinity for L-phenylalanine than

	LAT1 but lower affinity for glutamine and serine. L-alanine is transported at physiological concentrations. Plays a role in basolateral (re)absorption of neutral amino acids. 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. Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transpo
Background	caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,function:Sodium-independent, high-affinity transport of small and large neutral amino acids such as alanine, serine, threonine, cysteine, phenylalanine, tyrosine, leucine, arginine and tryptophan, when associated with SLC3A2/4F2hc. Acts as an amino acid exchanger. Has higher affinity for L-phenylalanine than LAT1 but lower affinity for glutamine and serine. L-alanine is transported at physiological concentrations. Plays a role in basolateral (re)absorption of neutral amino acids. 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. Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane. Plays an essential role in the reabsorption of neutral amino acids from the epithelial cells to the bloodstream in the kidney.,induction:Activity in polarized intestinal cells is regulated by the association between SLC3A2/4F2 (in the SLC3A2/4F2-LAT2 heterodimer) and ICAM1.,miscellaneous:L-leucine transport activity inhibited by small zwitterionic amino acids (i.e. glycine, alanine, serine, threonine asparginine, glutamine, methionine, leucine, isoleucine, valine, phenylalanine, tyrosine, tryptophan, histidine and cysteine) and by glutamine and asparginine. Methionine uptake was inhibited by the L-system substrates L-leucine, 2-amino-bicyclo-(2,2,1)-heptane-2-carboxylate (BCH), L-cysteine and by the MeHg-L-cysteine complex and structurally related S-ethyl-L-cysteine. MeHg-L-cysteine uptake is inhibited by L-methionine, L-leucine, BCH and S-ethyl-L-cysteine. L-leucine uptake was inhibited by L-CNSO.,similarity:Belongs to the amino acid-polyamine-organocation (APC) superfamily. L-type amino acid transporter (LAT) (TC 2.A.3.8) family.,subcellular location: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.,subunit:Disulfide-linked heterodimer with the amino acid transport protein SLC3A2/4F2hc.,tissue specificity: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.,
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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