L-Type Amino Acid Transporter 1 (y+LAT1) ELISA Kit for Chicken

PRODUCT OVERVIEW

Product Name	L-Type Amino Acid Transporter 1 (y+LAT1), ELISA Kit
Full Product Name	Chicken L-Type Amino Acid Transporter 1 ELISA Kit
Product Gene Name	y+LAT1 elisa kit
Species Reactivity	Chicken
Preparation and Storage	Store all reagents at 2-8 degree C
Molecular Weight	55,010 Da
OMIM	600182
3D Structure	ModBase 3D Structure for Q01650
Related Product Information for y+LAT1 elisa kit	MBS095078 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the L-Type Amino Acid Transporter 1 (y+LAT1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing y+LAT1. The ELISA analytical biochemical technique of the MBS095078 kit is based on y+LAT1 antibody-y+LAT1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect y+LAT1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, y+LAT1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of y+LAT1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for y+LAT1. It may not necessarily be applicable to this product.

NCBI GI #	71979932
NCBI GeneID	8140
NCBI Accession #	NP_003477.4
UniProt Primary Accession #	Q01650
UniProt Secondary Accession #	Q8IV97; Q9UBN8; Q9UP15; Q9UQC0
UniProt Related Accession #	Q01650
GenBank Nucleotide #	NM_003486.6
NCBI Official Full Name	large neutral amino acids transporter small subunit 1
NCBI Official Synonym Full Names	solute carrier family 7 member 5
NCBI Official Symbol	SLC7A5
NCBI Official Synonym Symbols	E16; CD98; LAT1; 4F2LC; MPE16; D16S469E
UniProt Protein Name	Large neutral amino acids transporter small subunit 1
UniProt Synonym Protein Names	4F2 light chain; 4F2 LC; 4F2LC; CD98 light chain; Integral membrane protein E16; L-type amino acid transporter 1; hLAT1; Solute carrier family 7 member 5; y+ system cationic amino acid transporter

Protein Family	Large neutral amino acids transporter
UniProt Gene Name	SLC7A5
UniProt Synonym Gene Names	CD98LC; LAT1; MPE16; 4F2 LC; 4F2LC; hLAT1
UniProt Entry Name	LAT1_HUMAN
NCBI Protein Information	large neutral amino acids transporter small subunit 1
UniProt Comments for y+LAT1	SLC7A5: Sodium-independent, high-affinity transport of large neutral amino acids such as phenylalanine, tyrosine, leucine, arginine and tryptophan, when associated with SLC3A2/4F2hc. Involved in cellular amino acid uptake. Acts as an amino acid exchanger. Involved in the transport of L-DOPA across the blood- brain barrier, and that of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane in tissues such as placenta. Plays a role in neuronal cell proliferation (neurogenesis) in brain. 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. May play an important role in high-grade gliomas. Mediates blood-to-retina L- leucine transport across the inner blood-retinal barrier which in turn may play a key role in maintaining large neutral amino acids as well as neurotransmitters in the neural retina. Acts as the major transporter of tyrosine in fibroblasts. Disulfide-linked heterodimer with the amino acid transport protein SLC3A2/4F2hc. Expression induced in quiescent peripheral blood lymphocytes after treatment with phorbol myristate acetate (PMA) and phytohemagglutinin (PHA). Expression and the uptake of leucine is stimulated in mononuclear, cytotrophoblast-like choriocarcinoma cells by combined treatment with PMA and calcium ionophore. Expressed abundantly in adult lung, liver, brain, skeletal muscle, placenta, bone marrow, testis, resting lymphocytes and monocytes, and in fetal liver. Weaker expression in thymus, cornea, retina, peripheral leukocytes, spleen, kidney, colon and lymph node. During gestation, expression in the placenta was significantly stronger at full-term than at the mid-trimester stage. Also expressed in all human tumor cell lines tested and in the astrocytic process of primary astrocytic gliomas. Expressed in retinal endothelial cells and in the intestinal epithelial cell line Caco-2. Belongs to the amino acid-polyamine-organocation (APC) superfamily. L-type amino acid transporter (LAT) (TC 2.A.3.8) family. Protein type: Transporter, SLC family; Transporter; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 16q24.3 Cellular Component: intracellular membrane-bounded organelle; membrane; apical plasma membrane; cytoplasm; integral to membrane; nucleolus; plasma membrane; cytosol; nucleus Molecular Function: L-amino acid transmembrane transporter activity; peptide antigen binding; neutral amino acid transmembrane transporter activity; amino acid transmembrane transporter activity Biological Process: neutral amino acid transport; amino acid metabolic process; nervous system development; amino acid transport; transport; ion transport; blood coagulation; cell differentiation; leukocyte migration; transmembrane transport
Research Articles on y+LAT1	**1.** the discovery of CD98 protein on the cell surface of the majority of malignant melanomas, is reported.
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