

For Research Use Only

SLC7A5 Polyclonal antibody

Catalog Number: 13752-1-AP

Featured Product

17 Publications



Basic Information

Catalog Number:

13752-1-AP

Size:

150ul, Concentration: 550 µg/ml by Nanodrop and 413 µg/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG4694

GenBank Accession Number:

BC039692

GeneID (NCBI):

8140

UNIPROT ID:

Q01650

Full Name:

solute carrier family 7 (cationic amino acid transporter, y+ system), member 5

Calculated MW:

507 aa, 55 kDa

Observed MW:

45-50 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:1000

IHC 1:20-1:200

Applications

Tested Applications:

WB, IHC, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse

Cited Species:

human, mouse, cow

Positive Controls:

WB: mouse lung tissue, human placenta tissue, MCF-7 cells

IHC: human lung tissue, mouse lung tissue, mouse liver tissue, human testis tissue, human stomach cancer tissue

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

Large neutral amino acid transporter 1 LAT1(also named as SLC7A5) is a sodium- and pH-independent transporter that supplies essential amino acids (e.g., leucine, phenylalanine) to cells. It plays an important role in the blood-brain barrier (BBB), where it facilitates the transport of thyroid hormones, drugs (e.g., L-DOPA, gabapentin), and metabolites to the brain. In addition, its expression is highly upregulated in various types of human cancers, which are characterized by a high demand for amino acids for growth and proliferation. The LAT1 subunit in humans is a 507 amino acid-long polypeptide with a theoretical molecular mass of 55 kDa. The protein is hydrophobic and is predicted to be constituted by 12 transmembrane segments. The apparent molecular mass of the proteins diminished to approximately 35 - 40 kDa.(PMID: 23912240 ;PMID: 26256001)

Notable Publications

Author	Pubmed ID	Journal	Application
Gommaar D'Hulst	36252815	Mol Metab	WB
Zi-Jian Zhang	34712611	Front Oncol	WB,IF
Asmita Gyawali	33000451	Mol Neurobiol	IHC,IF

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

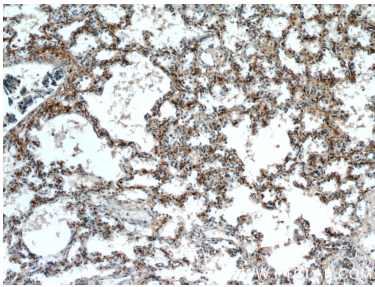
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

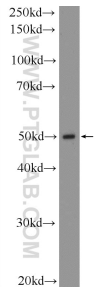
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human lung using 13752-1-AP (SLC7A5 antibody) at dilution of 1:50 (under 10x lens).



mouse lung tissue were subjected to SDS PAGE followed by western blot with 13752-1-AP (SLC7A5 Antibody) at dilution of 1:600 incubated at room temperature for 1.5 hours.