

For Research Use Only

SLC7A5 Polyclonal antibody

Catalog Number: 28670-1-AP

Featured Product

7 Publications



Basic Information

Catalog Number:

28670-1-AP

Size:

900 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG29164

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:

35-40 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:12000

IHC 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, ELISA

Cited Applications:

WB, IHC

Species Specificity:

human

Cited Species:

human

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

Positive Controls:

WB: A549 cells, MCF-7 cells, HeLa cells, HepG2 cells, MKN-45 cells, SW480 cells

IHC: human lung cancer tissue, human placenta tissue, human stomach cancer tissue

IF/ICC: HT-29 cells,

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
Daqi Jia	36505791	Front Oncol	IHC, WB
Dennis J Hsu	36608131	Sci Adv	WB
Qiang Ma	35986300	J Exp Clin Cancer Res	WB

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

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

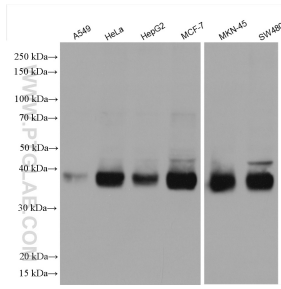
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E: Proteintech-CN@ptglab.com

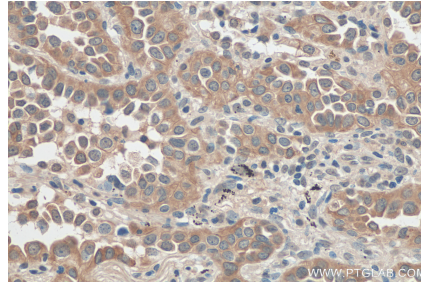
W: ptgcn.com

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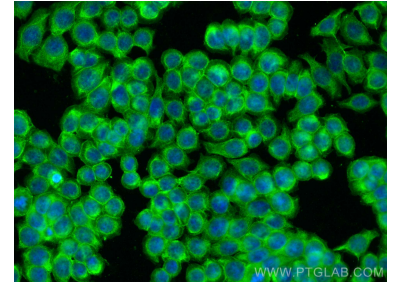
Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 28670-1-AP (SLC7A5 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 28670-1-AP (SLC7A5 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HT-29 cells using SLC7A5 antibody (28670-1-AP) at dilution of 1:200 and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).