

For Research Use Only

SLC7A5 Recombinant antibody

Catalog Number:84178-5-RR



Basic Information

Catalog Number:

84178-5-RR

Size:

1000 ug/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:

Protein A purification

CloneNo.:

241476D5

Recommended Dilutions:

WB 1:5000-1:50000

Applications

Tested Applications:

WB, FC (Intra), ELISA

Species Specificity:

human

Positive Controls:

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

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:

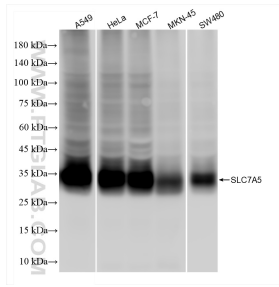
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E: Proteintech-CN@ptglab.com

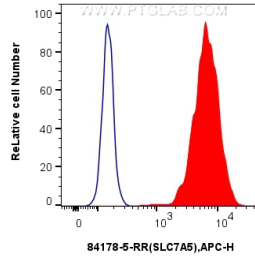
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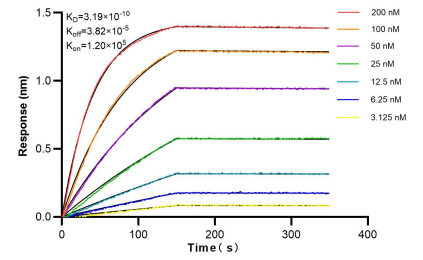
Selected Validation Data



A549 cells were subjected to SDS PAGE followed by western blot with 84178-5-RR (SLC7A5 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



1×10^6 HT-29 cells were intracellularly stained with 0.25 μ g SLC7A5 Recombinant antibody (84178-5-RR, Clone:241476D5) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 μ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).



Biolayer interferometry (BLI) kinetic assays of 84178-5-RR against Human SLC7A5 were performed. The affinity constant is 0.319 nM.