

For Research Use Only

SLC7A5 Recombinant antibody

Catalog Number:84178-5-RR



Basic Information

Catalog Number: 84178-5-RR	GenBank Accession Number: BC039692	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 ug/ml by Nanodrop;	GeneID (NCBI): 8140	CloneNo.: 241476D5
Source: Rabbit	UNIPROT ID: Q01650	Recommended Dilutions: WB 1:5000-1:50000 IF/ICC 1:125-1:500
Isotype: IgG	Full Name: solute carrier family 7 (cationic amino acid transporter, y+ system), member 5	
Immunogen Catalog Number: AG29164	Calculated MW: 507 aa, 55 kDa	
	Observed MW: 35-40 kDa	

Applications

Tested Applications: WB, IF/ICC, FC (Intra), ELISA	Positive Controls: WB : A549 cells, HeLa cells, MCF-7 cells, MKN-45 cells, SW480 cells IF/ICC : HT-29 cells,
Species Specificity: human	

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

***** 20ul sizes contain 0.1% BSA**

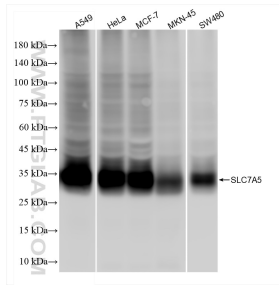
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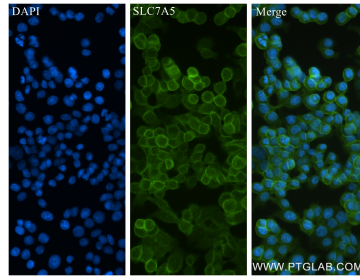
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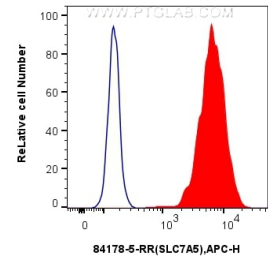
Selected Validation Data



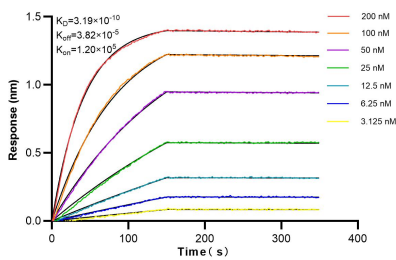
A549 cells were subjected to SDS PAGE followed by western blot with 84178-5-RR (SLC7A5 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (4% PFA) fixed HT-29 cells using SLC7A5 antibody (84178-5-RR, Clone: 241476D5) at dilution of 1:250 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2).



1x10⁶ HT-29 cells were intracellularly stained with 0.25 ug SLC7A5 Recombinant antibody (84178-5-RR, Clone:241476D5) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug 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.