

For Research Use Only

# SLC7A5 Recombinant antibody, PBS Only

Catalog Number: 84178-5-PBS



## Basic Information

Catalog Number:	84178-5-PBS	GenBank Accession Number:	BC039692	Purification Method:	Protein A purification
Concentration:	1 mg/ml	GeneID (NCBI):	8140	CloneNo.:	241476D5
Source:	Rabbit	UNIPROT ID:	Q01650		
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, IHC, IF/ICC, FC (Intra), Indirect ELISA

**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 -80°C.  
**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**  
**Storage Buffer:**  
PBS only, pH7.3

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

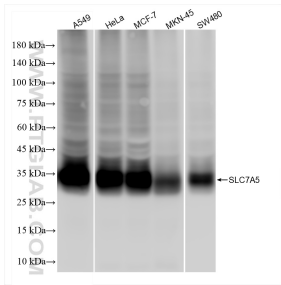
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

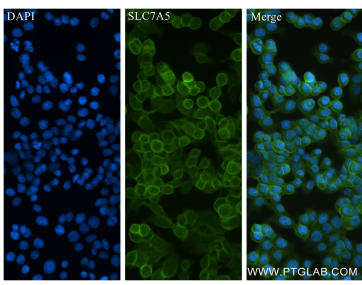
W: [ptgcn.com](http://ptgcn.com)

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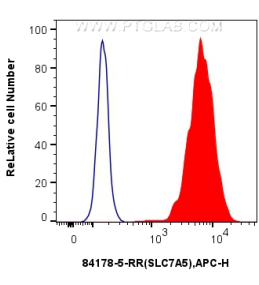
Selected Validation Data



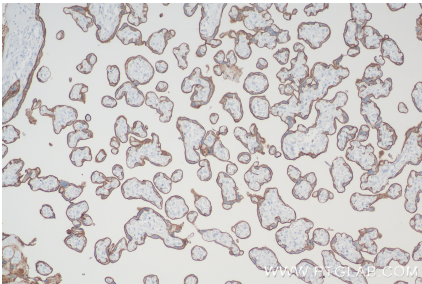
A549 cells were subjected to SDS PAGE followed by western blot with 84178-5-RR (SLC7A5 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 84178-5-PBS in a different storage buffer formulation.



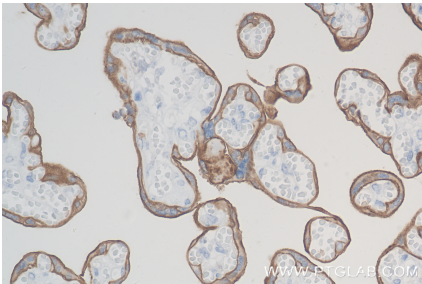
Immunofluorescent analysis of (4% PFA) fixed HT-29 cells using SLC7A5 antibody (84178-5-RR, Clone: 241476D5) at dilution of 1:250 and CoraLite® 488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). This data was developed using the same antibody clone with 84178-5-PBS in a different storage buffer formulation.



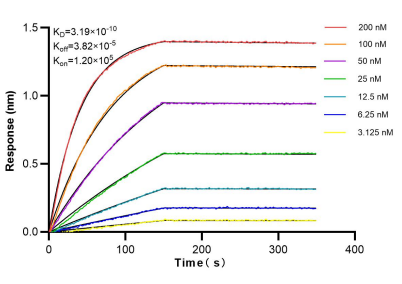
1x10^6 HT-29 cells were intracellularly stained with 0.25 ug SLC7A5 Recombinant antibody (84178-5-RR, Clone:241476D5) and APC-Conjugated Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 84178-5-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 84178-5-RR (SLC7A5 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 84178-5-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 84178-5-RR (SLC7A5 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 84178-5-PBS in a different storage buffer formulation.



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