

## Recombinant SLC7A5/LAT1 Monoclonal Antibody

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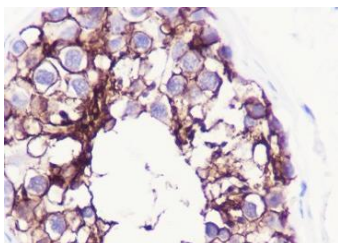
**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

### Description

<b>Reactivity</b>	Human;Rat;Mouse
<b>Immunogen</b>	Recombinant human SLC7A5/LAT1 fragment
<b>Host</b>	Rabbit
<b>Isotype</b>	IgG, $\kappa$
<b>Clone</b>	A613
<b>Purification</b>	Protein A purified
<b>Buffer</b>	PBS, 50% glycerol, 0.05% Proclin 300, 0.05% protein protectant.

### Applications Recommended Dilution

<b>WB</b>	1:2000-1:10000
<b>IHC</b>	1:200-1:1000



Immunohistochemistry of paraffin-embedded Human testis  
using SLC7A5/LAT1 Monoclonal Antibody at dilution of  
1:1000.

### Preparation & Storage

<b>Storage</b>	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
<b>Shipping</b>	Ice bag

### Background

L-type amino acid transporter 1 (LAT1), also known as Solute carrier family 7 member 5 (SLC7A5), is a high-affinity neutral transporter of larger amino acids. It facilitates the cellular amino acid uptake in a sodium independent manner and selectively transports D-and L-isomers of small neutral amino acids. LAT1 also regulates amino acid exchange in conjunction with solute carrier family 1 member 5 (SLC1A5). Transport of thyroid hormones across the placenta is established via LAT1 during normal fetal development. LAT1 promotes neuronal cell proliferation by regulating the transport of amino acids across the blood brain barrier. LAT1 is upregulated in various cancer types including breast cancer, lung cancer, prostate cancer, and gliomas. High expression of LAT1 is detected in non-small cell lung cancer with lymph node metastases. Increased LAT1 expression is a novel biomarker of high-grade malignancy in prostate cancers. Inhibition of LAT1 suppresses tumor cell growth in several tumor types.

### For Research Use Only