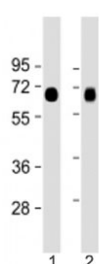


## LAT1 Antibody / L-type amino Acid Transporter 1 / SLC7A5 (N-Terminal Region) (F54110)

| Catalog No.   | Formulation                                | Size    |
|---------------|--|---------|
| F54110-0.2ML  | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.2 ml  |
| F54110-0.05ML | In 1X PBS, pH 7.4, with 0.09% sodium azide | 0.05 ml |

[Bulk quote request](#)

|                           |  |
|---------------------------|--|
| <b>Availability</b>       | 1-3 business days                                      |
| <b>Species Reactivity</b> | Human  |
| <b>Format</b>             | Antigen affinity purified                              |
| <b>Host</b>               | Rabbit   |
| <b>Clonality</b>          | Polyclonal (rabbit origin)                             |
| <b>Isotype</b>            | Rabbit Ig  |
| <b>Purity</b>             | Antigen affinity                                       |
| <b>UniProt</b>            | Q01650   |
| <b>Applications</b>       | Western Blot : 1:2000                                  |
| <b>Limitations</b>        | This LAT1 antibody is available for research use only. |



Western blot testing of LAT1 antibody at 1:2000: Lane 1) human lung and 2) placenta lysate. Predicted molecular weight ~55 kDa.

### Description

Large neutral amino acids transporter small subunit 1 / LAT1 / SLC7A5 is a sodium-independent, high-affinity transport of large neutral amino acids such as phenylalanine, tyrosine, leucine, arginine and tryptophan, when associated with SLC3A2/4F2hc. Involved in cellular amino acid uptake. Acts as an amino acid exchanger. Involved in the transport of L-DOPA across the blood- brain barrier, and that of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane in tissues such as placenta. Plays a role in neuronal cell proliferation (neurogenesis) in brain. Involved in the uptake of methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes, and hence

plays a role in metal ion homeostasis and toxicity. Involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L- nitrosocysteine (L-CNSO) across the transmembrane. May play an important role in high-grade gliomas. Mediates blood-to-retina L- leucine transport across the inner blood-retinal barrier which in turn may play a key role in maintaining large neutral amino acids as well as neurotransmitters in the neural retina. Acts as the major transporter of tyrosine in fibroblasts. [UniProt]

## Application Notes

The stated application concentrations are suggested starting points. Titration of the LAT1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

A portion of amino acids 15-45 from human LAT1 was used as the immunogen for the LAT1 antibody.

## Storage

Aliquot the LAT1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.