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SLC1A2 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP17647a

Specification

SLC1A2 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession P43004

SLC1A2 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 6506

Other Names
Excitatory amino acid transporter 2, Glutamate/aspartate transporter II, Sodium-dependent glutamate/aspartate transporter 2, Solute carrier family 1 member 2, SLC1A2, EAAT2, GLT1

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SLC1A2 Antibody (N-term) Blocking Peptide - Protein Information

Name SLC1A2 (HGNC:10940)

Function
Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7521911, PubMed:14506254, PubMed:15265858, PubMed:26690923). Functions as a symporter that transports one amino acid molecule together with two or three Na(+) ions and one proton, in parallel with the counter-transport of one K(+) ion (PubMed:14506254). Mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport (PubMed:14506254). Essential for the rapid removal of released glutamate from the synaptic cleft, and for terminating the postsynaptic action of glutamate (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein

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SLC1A2 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

SLC1A2 Antibody (N-term) Blocking Peptide - Images

SLC1A2 Antibody (N-term) Blocking Peptide - Background

This gene encodes a member of a family of solutetransporter proteins. The membrane-bound protein is the principaltransporter that clears the excitatory neurotransmitter glutamatefrom the extracellular space at synapses in the central nervoussystem. Glutamate clearance is necessary for proper synapticactivation and to prevent neuronal damage from excessive activationof glutamate receptors. Mutations in and decreased expression ofthis protein are associated with amyotrophic lateral sclerosis.Alternatively spliced transcript variants of this gene have beenidentified.

SLC1A2 Antibody (N-term) Blocking Peptide - References

Gebhardt, F.M., et al. J. Biol. Chem. 285(41):31313-31324(2010)Tian, G., et al. J. Neurochem. 113(4):978-989(2010)Nagai, Y., et al. Neurosci. Lett. 463(3):223-227(2009)Sasaki, K., et al. FEBS Lett. 583(13):2194-2200(2009)Gehring, E.M., et al. Cell. Physiol. Biochem. 24 (5-6), 361-368 (2009) :