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SLC1A7 Antibody (Center) Blocking peptide
Synthetic peptide
Catalog # BP13331c

Specification

SLC1A7 Antibody (Center) Blocking peptide - Product Information

Primary Accession O00341

SLC1A7 Antibody (Center) Blocking peptide - Additional Information

Gene ID 6512

Other Names
Excitatory amino acid transporter 5, Retinal glutamate transporter, Solute carrier family 1 member 7, SLC1A7, EAAT5

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13331c was selected from the Center region of SLC1A7. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

SLC1A7 Antibody (Center) Blocking peptide - Protein Information

Name SLC1A7 (HGNC:10945)

Synonyms EAAT5

Function
Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D- aspartate. 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:9108121). Acts primarily as an inhibitory glutamate-gated chloride channel being a major inhibitory presynaptic receptor at mammalian rod bipolar cell axon terminals. Glutamate binding gates a large Cl(-) conductance that mediates inhibition, affecting visual processing in the retina (By similarity).

Cellular Location

Photoreceptor inner segment membrane {ECO:0000250|UniProtKB:Q8JZR4}; Multi-pass membrane protein. Synaptic cell membrane {ECO:0000250|UniProtKB:Q8JZR4}; Multi-pass membrane protein. Note=Located in both cone and rod photoreceptor terminals and in axon terminals of rod bipolar cells. {ECO:0000250|UniProtKB:Q8JZR4}

Tissue Location
Expressed primarily in retina. Detectable in liver, heart, muscle and brain.

SLC1A7 Antibody (Center) Blocking peptide - Protocols

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

- Blocking Peptides

SLC1A7 Antibody (Center) Blocking peptide - Images

SLC1A7 Antibody (Center) Blocking peptide - Background

Transports L-glutamate; the L-glutamate uptake is sodium-and voltage-dependent and chloride-independent. Its associated chloride conductance may participate in visual processing.

SLC1A7 Antibody (Center) Blocking peptide - References

Bailey, S.D., et al. Diabetes Care (2010) In press :Yokoyama, K., et al. Nephron Clin Pract 115 (4), C237-C243 (2010) :Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)Gratacos, M., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 150B (6), 808-816 (2009) :Boehmer, C., et al. Biochem. Biophys. Res. Commun. 329(2):738-742(2005)