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SLC38A2 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP18342b

Specification

SLC38A2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q96QD8

SLC38A2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 54407

Other Names
Sodium-coupled neutral amino acid transporter 2, Amino acid transporter A2, Protein 40-9-1, Solute carrier family 38 member 2, System A amino acid transporter 2, System A transporter 1, System N amino acid transporter 2, SLC38A2, ATA2, KIAA1382, SAT2, SNAT2

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.

SLC38A2 Antibody (C-term) Blocking Peptide - Protein Information

Name SLC38A2 (HGNC:13448)

Function
Symporter that cotransports neutral amino acids and sodium ions from the extraccellular to the intracellular side of the cell membrane (PubMed:10930503, PubMed:15922329, PubMed:16621798, PubMed:15774260). The trasnport is pH-sensitive, Li(+)-intolerant, electrogenic, driven by the Na(+) electrochemical gradient and cotransports of neutral amino acids and sodium ions with a stoichiometry of 1:1. May function in the transport of amino acids at the blood-brain barrier (PubMed:10930503, PubMed:15774260). May function in the transport of amino acids in the supply of maternal nutrients to the fetus through the placenta (By similarity). Maintains a key metabolic glutamine/glutamate balance underpinning retrograde signaling by dendritic release of the neurotransmitter glutamate (By similarity). Transports L-proline in differentiating osteoblasts for the efficient synthesis of proline-enriched proteins and provides proline essential for osteoblast differentiation and bone formation during

bone development (By similarity).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q9JHE5}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9JHE5} Note=Insulin promotes recruitment to the plasma membrane from a pool localized in the trans-Golgi network or endosomes. Enriched in the somatodendritic compartment of neurons, it is also detected at the axonal shaft but excluded from the nerve terminal {ECO:0000250|UniProtKB:Q9JHE5}

Tissue Location
Ubiquitously expressed (PubMed:10930503). Expressed in neocortex (PubMed:16616430). Widely expressed in the central nervous system with higher concentrations in caudal regions. Expressed by glutamatergic and GABAergic neurons together with astrocytes and other non-neuronal cells in the cerebral cortex (at protein level) (PubMed:15774260).

SLC38A2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

SLC38A2 Antibody (C-term) Blocking Peptide - Images

SLC38A2 Antibody (C-term) Blocking Peptide - Background

SLC38A2 functions as a sodium-dependent amino acid transporter. Mediates the saturable, pH-sensitive and electrogenic cotransport of neutral amino acids and sodium ions with a stoichiometry of 1:1. May function in the transport of amino acids at the blood-brain barrier and in the supply of maternal nutrients to the fetus through the placenta.

SLC38A2 Antibody (C-term) Blocking Peptide - References

Lewis, R.M., et al. Placenta 31(5):418-422(2010)Jones, H.N., et al. Am. J. Physiol., Cell Physiol. 297 (5), C1228-C1235 (2009) :Zhang, Z., et al. J. Biol. Chem. 284(37):25314-25323(2009)Iruloh, C.G., et al. Pediatr. Res. 65(1):51-56(2009)Gjymishka, A., et al. J. Biol. Chem. 283(41):27736-27747(2008)