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SLC17A8 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP13493a

Specification

SLC17A8 Antibody (N-term) Blocking peptide - Product Information

Primary Accession Q8NDX2

SLC17A8 Antibody (N-term) Blocking peptide - Additional Information

Gene ID 246213

Other Names
Vesicular glutamate transporter 3, VGluT3, Solute carrier family 17 member 8, SLC17A8, VGLUT3

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13493a was selected from the N-term region of SLC17A8. 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.

SLC17A8 Antibody (N-term) Blocking peptide - Protein Information

Name SLC17A8 (HGNC:20151)

Synonyms VGLUT3

Function
Multifunctional transporter that transports L-glutamate as well as multiple ions such as chloride, sodium and phosphate (PubMed:33440152, PubMed:12151341). At the synaptic vesicle membrane, mainly functions as an uniporter that mediates the uptake of L- glutamate into synaptic vesicles at presynaptic nerve terminals of excitatory neural cells (PubMed:12151341). The L-glutamate uniporter activity is electrogenic and is driven by the proton electrochemical gradient, mainly by the electrical gradient established by the vacuolar H(+)-ATPase across the synaptic vesicle membrane (PubMed:12151341). In addition, functions as a chloride channel that allows a chloride permeation through the synaptic vesicle

membrane that affects the proton electrochemical gradient and promotes synaptic vesicles acidification (By similarity). At the plasma membrane, following exocytosis, functions as a symporter of Na(+) and phosphate from the extracellular space to the cytoplasm allowing synaptic phosphate homeostasis regulation (Probable). The symporter activity is electrogenic (PubMed:33440152). Moreover, operates synergistically with SLC18A3/VACHT under a constant H(+) gradient, thereby allowing striatal vesicular acetylcholine uptake (By similarity).

Cellular Location
Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q7TSF2}. Cell membrane; Multi-pass membrane protein. Synapse, synaptosome {ECO:0000250|UniProtKB:Q7TSF2}

Tissue Location
Expressed in amygdala, cerebellum, hippocampus, medulla, spinal cord and thalamus.

SLC17A8 Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

SLC17A8 Antibody (N-term) Blocking peptide - Images

SLC17A8 Antibody (N-term) Blocking peptide - Background

This gene encodes a vesicular glutamate transporter. Theencoded protein transports the neurotransmitter glutamate intosynaptic vesicles before it is released into the synaptic cleft.Mutations in this gene are the cause of autosomal-dominantnonsyndromic type 25 deafness. Alternate splicing results inmultiple transcript variants.

SLC17A8 Antibody (N-term) Blocking peptide - References

Ruel, J., et al. Am. J. Hum. Genet. 83(2):278-292(2008)Linke, N., et al. Histol. Histopathol. 23(8):979-986(2008)Almqvist, J., et al. Protein Sci. 16(9):1819-1829(2007)Gong, J., et al. Brain Res. 1082(1):73-85(2006)Seal, R.P., et al. Handb Exp Pharmacol 175, 137-150 (2006) :