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VGLUT3/SLC17A8 Rabbit pAb

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Catalog # AP59066

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8NDX2
Reactivity	Mouse
Predicted	Rat, Dog, Human, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	64991
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human VGLUT3/SLC17A8
Epitope Specificity	1-100/589
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SUBCELLULAR LOCATION	Cytoplasmic vesicle > secretory vesicle > synaptic vesicle membrane. Membrane. Cell junction > synapse > synaptosome.
DISEASE	Defects in SLC17A8 are the cause of deafness autosomal dominant type 25 (DFNA25) [MIM:605583]. DFNA25 is a form of sensorineural hearing loss. The expression of DFNA25 deafness is variable in terms of onset and rate of progression, with an age-dependent penetrance resembling an early-onset presbycusis, or senile deafness, a progressive bilateral loss of hearing that occurs in the aged.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a vesicular glutamate transporter. The encoded protein transports the neurotransmitter glutamate into synaptic vesicles before it is released into the synaptic cleft. Mutations in this gene are the cause of autosomal-dominant nonsyndromic type 25 deafness. Alternate splicing results in multiple transcript variants.[provided by RefSeq, May 2010]

Additional Information

Gene ID	246213
Other Names	Vesicular glutamate transporter 3, VGluT3, Solute carrier family 17 member 8, SLC17A8 (HGNC:20151), VGLUT3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

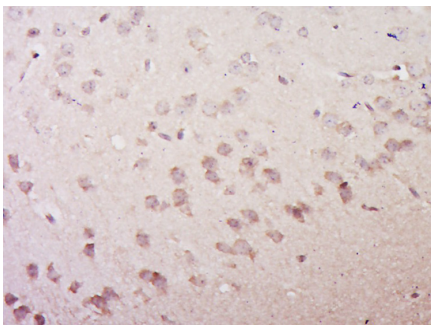
Protein Information

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:12151341, PubMed:33440152). 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.

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (VGLU3) Polyclonal Antibody, Unconjugated (AP59066) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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