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SLC32A 1 Rabbit pAb

Catalog # AP97970

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9H598
Other Accession	Q9H598
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57415
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC32A1
Epitope Specificity	1-100/525
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the amino acid/polyamine transporter 2 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Synaptic transmission involves the controlled exocytosis of vesicles containing specific neurotransmitters. Usually, neurotransmitters are synthesized in the cytoplasm of the cell and must be transported into synaptic vesicles for release. The vesicular GABA transporter (VGAT) is responsible for loading γ-aminobutyric acid (GABA), an inhibitory neurotransmitter, from neuronal cytoplasm into synaptic vesicles and is expressed only in the nerve endings of inhibitory neurons that contain GABA and/or glycine. During neocortical development, VGAT expression barely precedes the maturation of inhibitory synaptogenesis, suggesting that it may contribute to the development of neocortical GABAergic circuitry. VGAT may also play a role in epileptogenesis and the recovery mechanisms that occur after a spontaneous seizure.

Additional Information

Gene ID	140679
Other Names	DEE114; GEFSP12; VGAT; VIAAT; VIAAT GEFSP12; RUNC-47; VIAAT_HUMAN; SLC32A1; GABA and glycine transporter; Solute carrier family 32 member 1; Vesicular GABA transporter (hVIAAT); VIAAT_MOUSE; Vesicular GABA and glycine transporter; Vesicular GABA transporter (mVGAT | mVIAAT); VIAAT_RAT; Vesicular GABA transporter (rGVAT); rat UNC-47 homolog (RUNC-47); vesicular inhibitory amino acid transporter; solute carrier family 32 (GABA vesicular transporter), member 1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,WB=1:500-2000

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	SLC32A1 (HGNC:11018)
Synonyms	VGAT, VIAAT
Function	Antiporter that exchanges vesicular protons for cytosolic 4- aminobutanoate or to a lesser extend glycine, thus allowing their secretion from nerve terminals. The transport is equally dependent on the chemical and electrical components of the proton gradient (By similarity). May also transport beta-alanine (By similarity). Acidification of GABAergic synaptic vesicles is a prerequisite for 4- aminobutanoate uptake (By similarity).
Cellular Location	Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:O35458}; Multi-pass membrane protein. Presynapse {ECO:0000250|UniProtKB:O35633}. Note=Presents in glycine-, GABA- or GABA- and glycine-containing boutons {ECO:0000250|UniProtKB:O35458}
Tissue Location	Retina. Expressed throughout the horizontal cells or more specifically at the terminals.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.