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SV2A Rabbit pAb

Catalog # AP98459

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q7L0J3
Other Accession	Q7L0J3
Reactivity	Rat, Mouse
Predicted	Pig, Human, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82695
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SV2A
Epitope Specificity	621-720/742
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 major facilitator superfamily.
SUBUNIT	Interacts with SYT1/synaptotagmin-1 in a calcium-dependent manner. Binds the adapter protein complex AP-2.
Post-translational modifications	Phosphorylation by CK1 of the N-terminal cytoplasmic domain regulates interaction with SYT1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	SV2s (Synaptic Vesicle protein 2) are integral membrane glycoproteins present in all synaptic vesicles. They have 12 transmembrane domains predicted by sequence analysis. There are three characterized isoforms, SV2A, SV2B and SV2C. SV2A is expressed ubiquitously throughout the brain. SV2B has a more restricted distribution with varying degrees of coexpression with SV2A. SV2C is more closely related to SV2A but shows a very restricted expression pattern. The highest expression levels were observed in phylogenetically old brain areas like pallidum, the midbrain and the olfactory bulb. SV2A is probably involved in the maintenance of a pool of synaptic vesicles competent for calcium-stimulated exocytosis. SV2A is a highly glycosylated synaptic vesicle protein with homology to transmembrane transporters.

Additional Information

Gene ID	9900
Other Names	DEE113; SLC22B1; SV2; mKIAA0736; SV2A_BOVIN; SV2A; p87; SV2A_HUMAN; KIAA0736; SV2A_MOUSE; Synaptic vesicle protein 2; Synaptic vesicle protein 2A; Calcium regulator SV2A; SV2A_RAT; synaptic vesicle glycoprotein 2A; solute carrier family 22 member B1

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	SV2A
Synonyms	KIAA0736
Function	Plays a role in the control of regulated secretion in neural and endocrine cells, enhancing selectively low-frequency neurotransmission. Positively regulates vesicle fusion by maintaining the readily releasable pool of secretory vesicles (By similarity).
Cellular Location	Presynapse {ECO:0000250|UniProtKB:Q9JIS5}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q02563}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q02563}. Note=Enriched in chromaffin granules, not present in adrenal microsomes. Associated with both insulin granules and synaptic-like microvesicles in insulin-secreting cells of the pancreas (By similarity). Colocalizes with ATP2B1 at photoreceptor synaptic terminals. {ECO:0000250|UniProtKB:Q02563, ECO:0000250|UniProtKB:Q9JIS5}

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