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Rabbit Anti-SV2B/Biotin Conjugated antibody

SL11365R-Bio

Product Name	Anti-SV2B/Biotin
Chinese Name	生物素标记的突触泡蛋白 2B 抗体
Alias	Synaptic vesicle protein 2B; SV2B_HUMAN.
Research Area	Cell biology Neurobiology
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Chicken,Rabbit)
Applications	WB=1:50-200 ELISA=1:100-1000 IHC-P=1:50-200 IHC-F=1:50-200 ICC=1:50-200 IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	77kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human SV2B
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** In all vertebrates, SV2 proteins are abundant, hydrophobic, membrane glycoproteins that are expressed as two major isoforms, SV2A and SV2B, and one minor isoform, SV2C. SV2 proteins are differentially expressed in the brain and are present on all synaptic vesicles, independent of transmitter type. SV2A is abundantly expressed in the subcortex, specifically in the synaptic vesicles of all presynaptic nerve terminals, and also in most neuroendocrine secretory granules. SV2B displays a more restricted pattern of expression in

that it is only present on a small subset of synapses in the hippocampus and cortex. SV2A and SV2B are funtionally redundant and are required for maintaining normal brain function in vertebrates. SV2A and SV2B mediate synaptic transmission by regulating cytoplasmic Ca2+ levels in the nerve terminal during repetitive stimulation.

Function:
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. While 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.

Subunit:
Interacts with SYT1 in a calcium-independent manner. Forms a complex with SYT1, syntaxin-1 and SNAP25 (By similarity).

Subcellular Location:
Cytoplasmic vesicle, secretory vesicle. Synaptic vesicle membrane; Multi-pass membrane protein.

Post-translational modifications:
N-glycosylated (By similarity).
The N-terminal cytoplasmic domain is phosphorylated by CK1 (By similarity).

Similarity:
Belongs to the major facilitator superfamily.

Database links:

Entrez Gene: 9899 Human

Omim: 185861 Human

SwissProt: Q6IAR8 Human

SwissProt: Q7L1I2 Human

Unigene: 592018 Human

Important Note:

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