Datasheet for ABIN968305

anti-UNC13B antibody (AA 621-834)

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Overview

Quantity:	50 µg
Target:	UNC13B
Binding Specificity:	AA 621-834
Reactivity:	Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This UNC13B antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Rat Munc13-1 aa. 621-834
Clone:	32-panMunc13
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	UNC13B
Alternative Name:	Munc13 (Pan) (UNC13B Products)
Background:	Release of neurotransmitters at the synaptic junction is a primary mechanism of neuronal communication and is regulated by the synaptic vesicle (SV) cycle. Several components of the SV cycle were initially characterized in C. elegans. One of those, unc-13, is involved in normal presynaptic function. Mammalian homologues of unc-13 are Munc13-1, 13-2, and 13-3. These neuron-specific proteins lack N-terminal homology, but are highly conserved in their C-terminal regions. Here they contain a phorbal ester binding C1-domain and two C2-domains with homology to the PKC Ca2+/phospholipid-binding domain. The most abundant isoform, Munc 13-1, is a presynaptic receptor with high affinities for phorbol ester and DAG. In response to phorbol ester, Munc13-1 associates with the plasma membrane and acts as a stimulation dependent enhancer of neurotransmitter release. In addition, Munc13-1 interacts with components of the SV cycle (syntaxin, SNAP25, synaptobrevin, Doc2) and with a brain specific isoform of beta-spectrin, a protein that interacts with the actin cytoskeleton. Thus, it is thought that Munc13 proteins function in signaling pathways that regulate the neuronal exocytic machinery.
Molecular Weight:	196 kDa
Pathways:	Skeletal Muscle Fiber Development, Synaptic Vesicle Exocytosis

Application Details

Comment:	Related Products: ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

Betz, Ashery, Rickmann, Augustin, Neher, Südhof, Rettig, Brose: "Munc13-1 is a presynaptic phorbol ester receptor that enhances neurotransmitter release." in: **Neuron**, Vol. 21, Issue 1, pp. 123-36, (1998) (PubMed).

Sakaguchi, Orita, Naito, Maeda, Igarashi, Sasaki, Takai: "A novel brain-specific isoform of beta spectrin: isolation and its interaction with Munc13." in: **Biochemical and biophysical research communications**, Vol. 248, Issue 3, pp. 846-51, (1998) (PubMed).

Orita, Naito, Sakaguchi, Maeda, Igarashi, Sasaki, Takai: "Physical and functional interactions of Doc2 and Munc13 in Ca2+-dependent exocytotic machinery." in: **The Journal of biological chemistry**, Vol. 272, Issue 26, pp. 16081-4, (1997) (PubMed).

Brose, Hofmann, Hata, Südhof: "Mammalian homologues of Caenorhabditis elegans unc-13 gene define novel family of C2-domain proteins." in: **The Journal of biological chemistry**, Vol. 270, Issue 42, pp. 25273-80, (1995) (PubMed).

Images

Western Blotting

Image 1. Western blot analysis of panMunc13 on rat brain lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of panMunc13.