Datasheet for ABIN492371

anti-STX1A antibody

3 Images

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Overview

Quantity:	0.1 mg
Target:	STX1A
Reactivity:	Human, Mouse, Rat, Cow, Rabbit
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This STX1A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoprecipitation (IP)

Product Details

Immunogen:	Synaptosomal plasma membrane fraction from adult Rat hippocampus. Remarks: This hybridoma was established by fusion of Mouse myeloma cell NSI/Ag4-1 withBalb/c mouse splenocyte.
Clone:	HPC-1
Isotype:	IgG1
Specificity:	This antibody reacts with 35 kDa membrane protein Syntaxin-1 expressed predominantly in neuronal tissues on Western blotting, Immunoprecipitation and Immunohistochemistry.
Cross-Reactivity (Details):	Species reactivity (expected):Bovine and Rat. Species reactivity (tested):Human, Mouse and Rat.
Characteristics:	Synonyms: Syntaxin-1A, STX1, Neuron-specific antigen HPC-1
Purification:	Protein-A Sepharose Chromatography of hybridoma supernatant.

Target Details

Target:	STX1A
Alternative Name:	Syntaxin 1A / STX1A (STX1A Products)
Background:	Syntaxin 1, also known as HPC-1, is a 35 kDa integral membrane protein that is abundantly expressed in neurons and neuroendocrine cells. Syntaxin is essential for synaptic vesicle fusion and it interacts with several other proteins important for synaptic function, including its partners in the fusion complex (Synaptobrevin/VAMP, SNAP-25, α-SNAP, synaptotagmin, Munc-18/n-Sec1, and Ca2+-channels). Syntaxin is concentrated in synapses and synaptic vesicles where it is a component of the SNARE complex.Synonyms: Neuron-specific antigen HPC-1, STX1, Syntaxin-1A
Gene ID:	6804
UniProt:	Q16623
Pathways:	Peptide Hormone Metabolism, Synaptic Membrane, Synaptic Vesicle Exocytosis, Dicarboxylic Acid Transport

Application Details

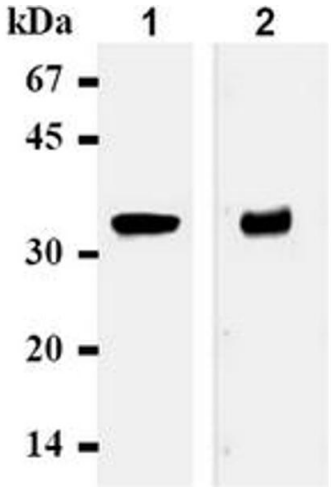
Application Notes:	Western blotting: 0.1 µg/mL for chemiluminescence detection system. Immunoprecipitation: 2 µg/200 µL of cell extract. Immunohistochemistry on Paraffin Embedded Sections: 5 µg/mL (Heat treatmentnecessary). Microwave oven: 2 times for 10 minutes each in 10 mM citrate buffer (pH 6.5). Detailed procedure is provided in Protocols. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Protocol:	SDS-PAGE & Western Blotting1) Wash the cells 3 times with PBS and suspend with 10 volume of cold Lysis buffer (50 mMTris-HCl, pH 7. 2, 250 mM NaCl, 0. 1% NP-40, 2 mM EDTA, 10% glycerol) containingappropriate protease inhibitors. Incubate it at 4°C with rotating for 30 minutes, thensonicate briefly (up to 10 seconds). 2) Centrifuge the tube at 12,000 x g for 10 minutes at 4°C and transfer the supernatant toanother tube. Measure the protein concentration of the supernatant and add the cold lysisbuffer to make 8 mg/ml solution. 3. Mix the sample with equal volume of Laemmli's sample buffer. 4) Boil the samples for 2 minutes and centrifuge. Load 10 µL of the sample per lane in a 1mm thickSDS-polyacrylamide gel for electrophoresis. 5) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm2for 1 hour ina semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% MeOH). Seethe manufacture's manual for precise transfer procedure. 6) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH7. 2)for 1 hour at RT

Application Details

	or overnight at 4°C. 7) Incubate the membrane with primary antibody diluted with PBS, pH 7. 2 containing 1%skimmed milk as suggest in the APPLICATIONS for 1 hour at room temperature. (Theconcentration of antibody will depend on condition.)8) Wash the membrane with PBS-T [0. 05% Tween-20 in PBS] (5 mimnutes x 3 times). 9) Incubate the membrane with the 1: 10,000 HRP-conjugated anti-mouse IgG diluted with1% skimmed milk (in PBS, pH 7. 2) for 1 hour at RT. 10) Wash the membrane with PBS-T (5 minutes x 6 times). 11) Wipe excess buffer on the membrane, then incubate it with appropriatechemiluminescence reagent for 1 minute. Remove extra reagent from the membrane bydabbing with paper towel, and seal it in plastic wrap. 12) Expose to an X-ray film in a dark room for 5 minutes. Develop the film as usual. Thecondition for exposure and development may vary. Positive Controls: Mouse brain, PC12Immunoprecipitation1) Wash the cells 3 times with PBS and suspend with 10 volume of cold Lysis buffer (50 mMTris-HCl pH 7. 2, 250 mM NaCl, 0. 1% NP-40, 2 mM EDTA, 10% glycerol) containingappropriate protease inhibitors. Incubate it at 4°C with rotating for 30 minutes, thensonicate briefly (up to 10 seconds). 2) Centrifuge the tube at 12,000 x g for 10 minutes at 4°C and transfer the supernatant toanother tube. 3) Add primary antibody as suggest in the APPLICATIONS into 200 µL of the supernatant. Mix well and incubate with gentle agitation for 30-120 minutes at 4°C. Add 20 µl of 50%protein A agarose beads resuspended in the cold lysis buffer. Mix well and incubate withgentle agitation for 60 minutes at 4°C.
Restrictions:	For Research Use only

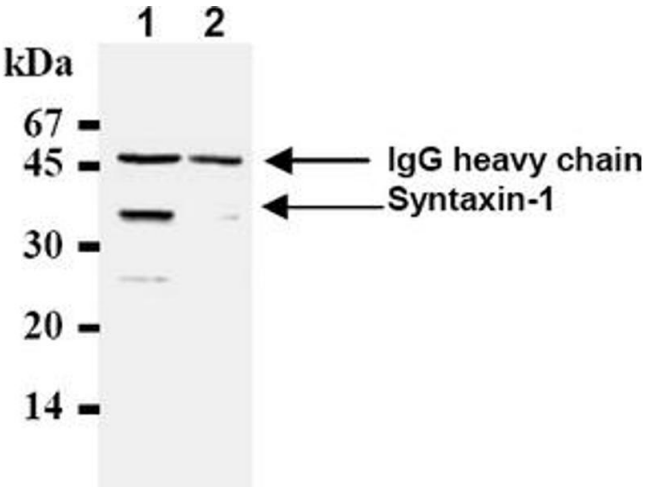
Handling

Concentration:	1.0 mg/mL
Buffer:	PBS, pH 7.2 containing 50 % Glycerol without preservatives.
Preservative:	Without preservative
Storage:	-20 °C
Storage Comment:	Store the antibody (in aliquots) at -20 °C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
Expiry Date:	12 months



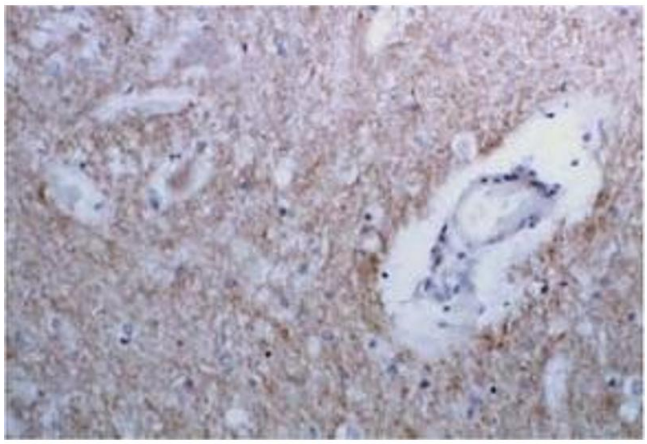
Western Blotting

Image 1.



Western Blotting

Image 2.



Immunohistochemistry

Image 3.