

Anti-Synaptophysin/SYP Antibody Picoband™

Catalog Number: PB9409

About SYP

SYP (Synaptophysin) is located on the short arm of X chromosome (Xp11.23-p11.22). The protein is a synaptic vesicle glycoprotein with four transmembrane domains weighing 38kDa. It is present in neuroendocrine cells and in virtually all neurons in the brain and spinal cord that participate in synaptic transmission. It acts as a marker for neuroendocrine tumors, and its ubiquity at the synapse has led to the use of synaptophysin immunostaining for quantification of synapses. Also, the protein binds cholesterol and is thought to direct targeting of vesicle-associated membrane protein 2 (synaptobrevin) to intracellular compartments. Mutations in this gene are associated with X-linked mental retardation (XLMR).

Overview

Product Name	Anti-Synaptophysin/SYP Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Synaptophysin/SYP Antibody Picoband™ catalog # PB9409. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P08247

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Synaptophysin, identical to the related mouse and rat sequences.
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Mouse, Rat, Human

Anti-Synaptophysin/SYP Antibody Picoband™ (PB9409) Images

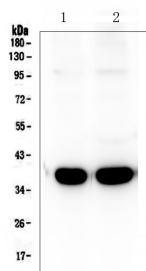


Figure 1. Western blot analysis of Synaptophysin using anti-Synaptophysin antibody (PB9409).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Synaptophysin antigen affinity purified polyclonal antibody (Catalog # PB9409) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Synaptophysin at approximately 38KD. The expected band size for Synaptophysin is at 34KD.

3 Publications Citing This Product

1. PubMed ID: 25206583, Liu Y, Liang Z, Liu J, Zou W, Li X, Wang Y, An L. Neural Regen Res. 2013 Oct 15;8(29):2725-33. Doi: 10.3969/J.Issn.1673-5374.2013.29.004. Downregulation Of Caveolin-1 Contributes To The Synaptic Plasticity Deficit In The Hippocampus Of Aged Rats.
2. PubMed ID: 23271319, Li Xh, Xin X, Wang Y, Wu Jz, Jin Zd, Ma Ln, Nie Cj, Xiao X, Hu Y, Jin Mw. J Alzheimers Dis. 2013;34(3):755-67. Doi: 10.3233/Jad-122017. Pentamethylquercetin Protects Against Diabetes-Related Cognitive Deficits In Diabetic Goto-Kakizaki Rats.
3. PubMed ID: 24457043, Chen Y, Wei G, Nie H, Lin Y, Tian H, Liu Y, Yu X, Cheng S, Yan R, Wang Q, Liu Dh, Deng W, Lai Y, Zhou Jh, Zhang Sx, Lin Ww, Chen Df. Brain Res. 2014 Mar 13;1552:41-54. Doi: 10.1016/J.Brainres.2014.01.005. Epub 2014 Jan 20. ??-Asarone Prevents Auto...

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