

Anti-SYP/Synaptophysin Antibody Picoband™ (monoclonal, 3G12)

Catalog # ABO14920

Product Information

Application	WB
Primary Accession	Human(P08247) , Mouse(Q62277) , Rat(P07825)
Host	Mouse
Isotype	Mouse IgG2b
Reactivity	Rat, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-SYP/Synaptophysin Antibody Picoband™ (monoclonal, 3G12) . Tested in WB applications. This antibody reacts with Mouse, Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Additional Information

Calculated MW	38 KDa
Application Details	Western blot, 0.1-0.5 µg/ml, Mouse, Rat
Subcellular Localization	Cytoplasmic vesicle,secretory vesicle,synaptic vesicle membrane;Multi-pass membrane protein. Cell junction,synapse,synaptosome.
Protein Name	Synaptophysin
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Clone Names	Clone: 3G12
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Synaptophysin, identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross-reactivity with other proteins.
Storage	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.

Protein Information

Background

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).

Images

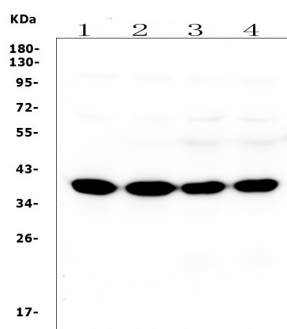


Figure 1. Western blot analysis of SYP using anti-SYP antibody (M05049-3).

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: rat brain whole cell lysates,

Lane 3: mouse brain whole cell lysates,

Lane 4: mouse brain whole cell 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 mouse anti-SYP antigen affinity purified polyclonal antibody (Catalog # M05049-3) at 0.5 g/mL overnight at 4C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for SYP at approximately 38KD. The expected band size for SYP is at 34KD.

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