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Synaptophysin (native) Antibody
Synaptophysin Antibody, Clone EP10
Catalog # ASM10118

Specification

Synaptophysin (native) Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P08247
Other Accession	NP_003170.1
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human**
Clonality	**Monoclonal**

Description
Mouse Anti-Human Synaptophysin (native) Monoclonal IgG1

Target/Specificity
Detects ~38kDa.

Other Names
SYPH Antibody, Sypl Antibody, Syn p38 Antibody, Synaptophysin Antibody, Major synaptic vesicle protein p38 Antibody

Immunogen
Immunoprecipitate of human brain

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-178 was sufficient for detection of Synaptophysin in 10 µg of human brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Cytoplasmic Vesicle | Secretory Vesicle | Synaptic Vesicle Membrane | Cell Junction | Synapse

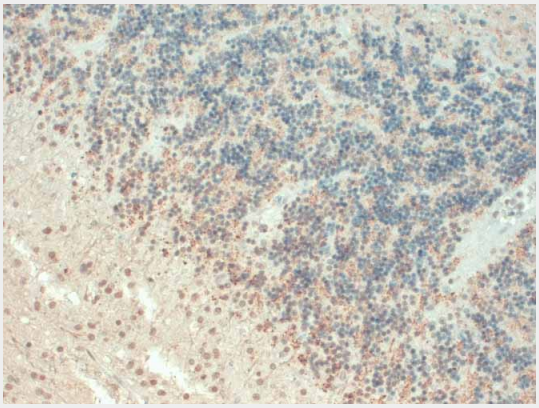
Synaptophysin (native) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

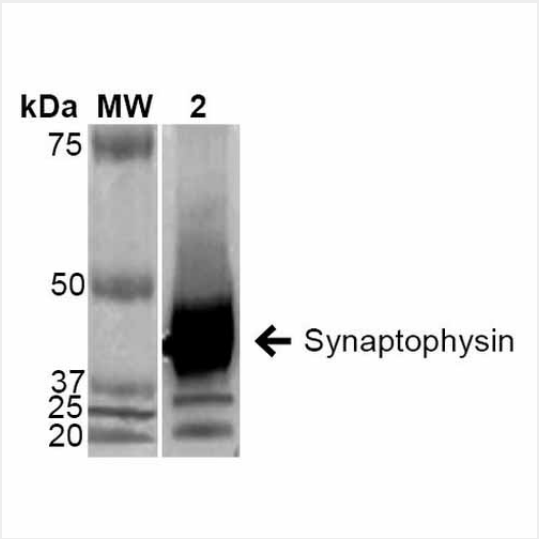
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Synaptophysin (native) Antibody - Images



Immunohistochemistry analysis using Mouse Anti-Synaptophysin Monoclonal Antibody, Clone EP10 (ASM10118). Tissue: Brain Slice. Species: Human. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-Synaptophysin Monoclonal Antibody (ASM10118) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 µl for 5 minutes at RT. Localization: Neurons and fibers but not on the white matter. Magnification: 20x.



Western Blot analysis of Human Brain showing detection of ~38 kDa Synaptophysin protein using Mouse Anti-Synaptophysin Monoclonal Antibody, Clone EP11 (ASM10118). Lane 1: Molecular Weight Ladder (MW). Lane 2: Human Brain. Load: 15 µg. Block: 5% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-Synaptophysin Monoclonal Antibody (ASM10118) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:2000 for 60 min at RT. Color Development: ECL solution for 5 min at RT. Predicted/Observed Size: ~38 kDa. Other Band(s): 25 kDa, 20 kDa.

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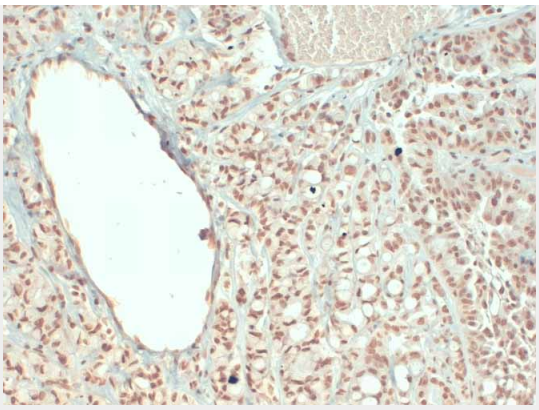
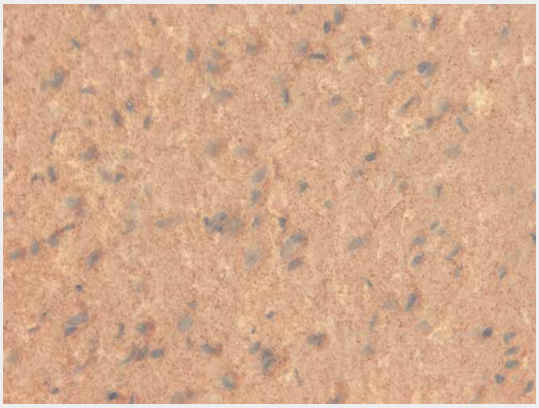


Immunohistochemistry analysis using Mouse Anti-Synaptophysin Monoclonal Antibody, Clone EP10 (ASM10118). Tissue: Cerebellum. Species: Human. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-Synaptophysin Monoclonal Antibody (ASM10118) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 µl for 5 minutes at RT. Localization: Neurons and fibers. Magnification: 20x.



Immunohistochemistry analysis using Mouse Anti-Synaptophysin Monoclonal Antibody, Clone EP10 (ASM10118). Tissue: Fetal brain tissue. Species: Human. Fixation: 10% Formalin Solution for 12-24 hours at RT. Primary Antibody: Mouse Anti-Synaptophysin Monoclonal Antibody (ASM10118) at 1:1000 for 1 hour at RT. Secondary Antibody: HRP/DAB Detection System: Biotinylated Goat Anti-Mouse, Streptavidin Peroxidase, DAB Chromogen (brown) for 30 minutes at RT. Counterstain: Mayer Hematoxylin (purple/blue) nuclear stain at 250-500 µl for 5 minutes at RT. Localization: Neurons.

Synaptophysin (native) Antibody - Background

Synaptophysin is a synaptic vesicle glycoprotein with four transmembrane domains weighing 38kDa (1). 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 the presynaptic vesicle, and functions in synaptic vesicle exocytosis, including cholesterol-dependent vesicle biogenesis, regulation of SNARE assembly via interaction with VAMP/synaptobrevin, formation of the fusion pore initiating neurotransmitter release, and activation of vesicle endocytosis (2, 3). This gene has also been implicated in X linked mental retardation (4).

Synaptophysin (native) Antibody - References

1. Johnston P.A., et al. (1989) J Biol Chem. 264: 1268-1273.
2. Thiele C., et al. (2000) Nat Cell Biol. 2: 42-49.
3. Valtorta F., et al. (2004) Bioessays 26: 445-453.

4. Tarpey P.S., et al. (2009) Nat Genet. 41(5): 535-543.