

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

Specification

Synaptophysin (native) Antibody - Product Information

Application **IHC, WB**
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, Syn1 Antibody, Syn p38 Antibody, Synaptophysin Antibody, Major synaptic vesicle protein p38 Antibody

Immunogen

Immunoprecipitate of human brain

Purification

Protein G Purified

Storage **-20°C**

Storage Buffer

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

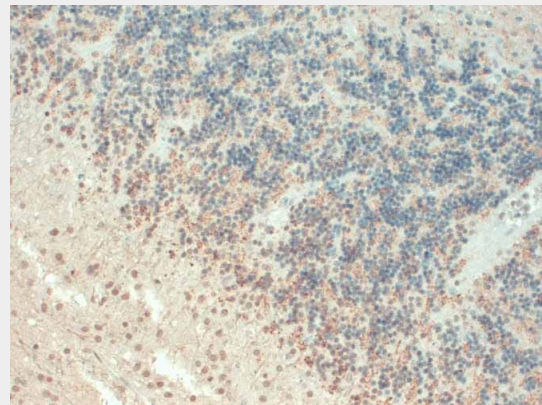
Shipping **Blue Ice or 4°C**
Temperature

Certificate of Analysis

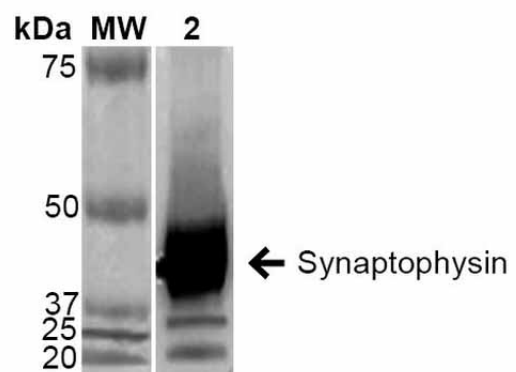
1 µg/ml of SMC-178 was sufficient for detection of Synaptophysin in 10 µg of human brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization

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



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.

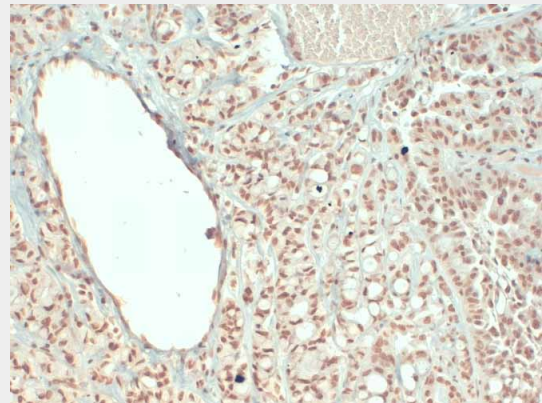


Synaptophysin (native) Antibody - Protocols

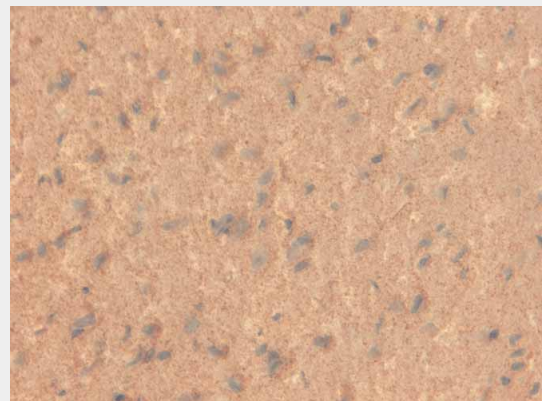
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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.



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 μ l 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.