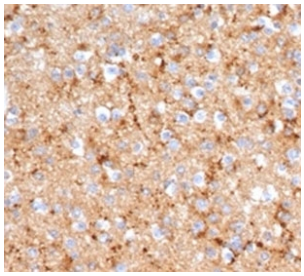
SYP Antibody Recombinant Mouse MAb Clone rSYP/6856 / Synaptophysin (SYP) Antibody [clone rSYP/6856] (V9154)

Catalog No.	Formulation	Size
V9154-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9154-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9154SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

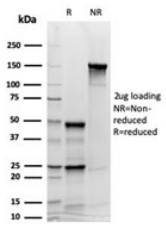
Recombinant | MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rSYP/6856
Purity	Protein A/G affinity
UniProt	P08247
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 2-4ug/ml
Limitations	This SYP antibody is available for research use only.



SYP Antibody Recombinant Mouse MAb Clone rSYP/6856. Immunohistochemistry analysis of FFPE human brain tissue shows widespread cytoplasmic HRP-DAB brown staining within neuronal cells and neuropil, consistent with Synaptophysin (SYP) localization in presynaptic vesicle membranes. The staining pattern highlights dense synaptic vesicle populations throughout neuronal processes and synapse-rich regions of brain tissue. Hematoxylin counterstain marks nuclei in blue. The recombinant mouse monoclonal SYP antibody clone rSYP/6856 was used to detect synaptic vesicle protein expression in human brain tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free SYP Antibody Recombinant Mouse MAb Clone rSYP/6856 as confirmation of integrity and purity.

Description

Synaptophysin (SYP) is a synaptic vesicle membrane glycoprotein that is highly expressed in neurons and neuroendocrine cells where it serves as a widely used marker of secretory vesicle membranes. SYP Antibody Recombinant Mouse MAb Clone rSYP/6856 is used to detect Synaptophysin protein in studies examining neuroendocrine cell populations and vesicle-associated proteins involved in regulated secretion. Because Synaptophysin is a major component of synaptic and neuroendocrine vesicles, detection of SYP provides a reliable indicator of vesicle-rich secretory cells in biological research.

Synaptophysin is also known as synaptic vesicle glycoprotein p38 or major synaptic vesicle protein p38 and is encoded by the SYP gene. The protein contains four transmembrane domains that anchor it within vesicle membranes, where it participates in vesicle trafficking, vesicle formation, and regulated secretion of signaling molecules. Through interactions with vesicle fusion proteins and membrane trafficking machinery, Synaptophysin contributes to the organization of secretory vesicle pools in both neuronal synapses and endocrine secretory systems.

In addition to its role in neurons, Synaptophysin is strongly expressed in neuroendocrine cells of multiple organs including the pancreas, adrenal medulla, and gastrointestinal tract. These cells rely on regulated secretory vesicles to release hormones or neurotransmitters in response to physiological signals. Because of this vesicle localization, SYP is frequently used as a molecular marker to identify neuroendocrine lineage cells and to study vesicle-associated proteins involved in hormone secretion and endocrine signaling.

Clone rSYP/6856 is a recombinant mouse monoclonal antibody developed to recognize Synaptophysin protein in neuronal and neuroendocrine tissues. Recombinant monoclonal antibodies provide defined antibody sequences and consistent target recognition across experiments. Detection of SYP using clone rSYP/6856 supports analysis of vesicle-associated proteins and secretory cell populations in a wide range of biological and biomedical studies.

Synaptophysin expression is abundant throughout the central nervous system including the cerebral cortex, hippocampus, cerebellum, and spinal cord, reflecting the high density of synaptic vesicles present in neuronal synapses. The protein is also strongly expressed in endocrine tissues such as pancreatic islets and adrenal medullary chromaffin cells, where vesicle-mediated secretion plays a critical physiological role. Because of this distribution, Synaptophysin detection is commonly used to evaluate neuronal differentiation and neuroendocrine cell identity in experimental models.

Due to its association with vesicle membranes and regulated secretory pathways, Synaptophysin remains one of the most widely studied vesicle proteins in neuroscience and endocrine biology. Detection of SYP using clone rSYP/6856 supports investigation of synaptic vesicle dynamics, neuroendocrine secretory mechanisms, and vesicle-associated signaling pathways in neuronal and endocrine tissues.

Application Notes

Optimal dilution of the SYP Antibody Recombinant Mouse MAb Clone rSYP/6856 should be determined by the researcher.

Immunogen

A portion of amino acids 224-313 was used as the immunogen for the recombinant SYP antibody.

Storage

Aliquot the recombinant SYP antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Synaptophysin antibody, Synaptic vesicle glycoprotein antibody, Major synaptic vesicle protein p38 antibody, Synaptophysin p38 antibody