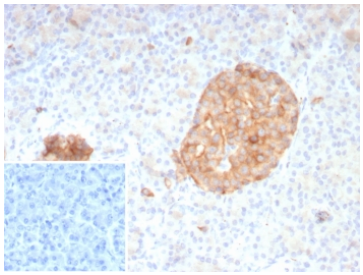
SYP Antibody Recombinant Mouse MAb Clone rSYP/8807 / Synaptophysin (SYP) Antibody [clone rSYP/8807] (V5331)

Catalog No.	Formulation	Size
V5331-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5331-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5331SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

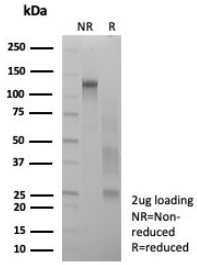
Recombinant | MOUSE MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rSYP/8807
Purity	Protein A/G affinity
UniProt	P08247
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This SYP antibody is available for research use only.



SYP Antibody Recombinant Mouse MAb Clone rSYP/8807. Immunohistochemistry analysis of FFPE human pancreas tissue shows strong cytoplasmic HRP-DAB brown staining in pancreatic islet cells, consistent with Synaptophysin (SYP) localization in neuroendocrine secretory vesicles. Positive staining highlights endocrine cells within the islets of Langerhans, while surrounding exocrine pancreatic tissue shows minimal staining. Hematoxylin counterstain marks nuclei in blue. Inset: PBS was used in place of the primary antibody as a secondary antibody negative control. The recombinant mouse monoclonal SYP antibody clone rSYP/8807 was used to detect synaptic vesicle protein expression in human pancreatic neuroendocrine cells. 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/8807 as confirmation of integrity and purity.

Description

Synaptophysin (SYP) is a major synaptic vesicle membrane glycoprotein that is highly enriched in presynaptic terminals of neurons throughout the central and peripheral nervous systems. SYP Antibody Recombinant Mouse MAb Clone rSYP/8807 is used in research focused on neuronal connectivity and synaptic vesicle organization, where detection of Synaptophysin provides a reliable marker of presynaptic structures and synapse-rich regions of neural tissue. Because synaptic vesicles accumulate at neuronal terminals prior to neurotransmitter release, SYP is widely used to visualize synaptic density and neuronal network architecture.

Synaptophysin is also referred to in the literature 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 synaptic vesicle membranes and help organize vesicle membrane structure. Through interactions with vesicle-associated proteins involved in membrane fusion and neurotransmitter release, Synaptophysin contributes to synaptic vesicle trafficking and vesicle recycling within presynaptic compartments.

Within neurons, Synaptophysin localizes predominantly to presynaptic boutons along axons where clusters of synaptic vesicles accumulate in preparation for neurotransmitter release. Because of this highly specific localization, detection of SYP allows researchers to identify presynaptic terminals and to examine the distribution of synapses within neuronal circuits. Visualization of Synaptophysin-positive vesicles is commonly used to evaluate synapse formation, synaptic remodeling, and changes in synaptic density associated with neuronal development or neurological disease.

Clone rSYP/8807 is a recombinant mouse monoclonal antibody developed to recognize Synaptophysin protein in neuronal tissue. Recombinant monoclonal antibodies provide defined antibody sequences and consistent target recognition, supporting reliable detection of vesicle-associated proteins across experimental studies. Clone rSYP/8807 recognizes the Synaptophysin protein present in synaptic vesicle membranes and enables investigation of synaptic vesicle protein expression in neuronal cells and brain tissue.

Synaptophysin expression is abundant in brain regions that contain dense neuronal synapses including the cerebral cortex, hippocampus, cerebellum, and spinal cord. These regions contain extensive networks of synaptic connections where vesicle-mediated neurotransmitter release is essential for neuronal signaling. Because of this expression pattern, SYP detection is frequently used to evaluate synapse-rich neuropil regions and to study neuronal circuitry in experimental models of brain function.

Due to its tight association with synaptic vesicle membranes and presynaptic terminals, Synaptophysin remains one of the most widely used markers for studying synaptic vesicle biology and neuronal communication. Detection of SYP using clone rSYP/8807 supports research investigating synaptic organization, neuronal connectivity, and vesicle trafficking mechanisms in neuroscience studies.

Application Notes

Optimal dilution of the SYP antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 224-313) from the human protein was used as the

immunogen for the SYP antibody.

Storage

Aliquot the 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

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