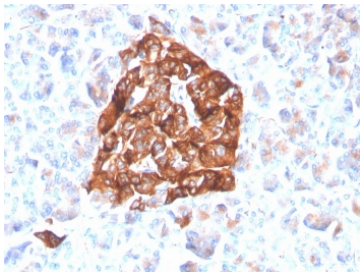
Recombinant Synaptophysin Antibody [clone SYP/4503R] (V8643)

Catalog No.	Formulation	Size
V8643-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8643-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8643SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	SYP/4503R
Purity	Protein A affinity chromatography
UniProt	IDP08247
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This recombinant Synaptophysin antibody is available for research use only.



IHC staining of FFPE human pancreas with recombinant Synaptophysin antibody (clone SYP/4503R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Recombinant Synaptophysin antibody detects synaptophysin, a synaptic vesicle glycoprotein encoded by the SYP gene. Synaptophysin is one of the most abundant proteins in presynaptic vesicles, where it regulates exocytosis and

neurotransmitter release. Because it is expressed across nearly all types of neurons, Recombinant Synaptophysin antibody is an essential reagent in neuroscience, pathology, and developmental biology.

Synaptophysin is a 38 kDa integral membrane protein with four transmembrane domains and a short cytoplasmic tail. It contributes to vesicle biogenesis and recycling, ensuring efficient neurotransmitter release. Synaptophysin is widely used as a marker of presynaptic terminals, providing insights into synaptic density and connectivity. In pathology, synaptophysin expression is used to identify neuroendocrine tumors and assess synaptic integrity in neurodegenerative diseases.

The Recombinant Synaptophysin antibody clone SYP/4503R provides specific and reproducible recognition. Recombinant production ensures lot-to-lot consistency, minimizing variability in long-term studies. Clone SYP/4503R has been cited in peer-reviewed publications investigating neurodegeneration, synaptic plasticity, and tumor classification. Its applications include immunohistochemistry, Western blotting, and immunofluorescence.

Research using clone SYP/4503R has demonstrated that synaptophysin serves as a robust marker of synapse density, useful for quantifying changes in disorders such as AlzheimerÃ¢Â€Â™s and ParkinsonÃ¢Â€Â™s disease. In oncology, synaptophysin detection supports diagnosis of neuroendocrine tumors, including pheochromocytomas and small cell lung carcinoma. Beyond pathology, this antibody enables developmental studies of synapse formation and neural circuit assembly.

NSJ Bioreagents supplies this Recombinant Synaptophysin antibody to support neuroscience, oncology, and developmental biology. Alternate designations include SYP antibody, synaptic vesicle protein antibody, major synaptic vesicle glycoprotein antibody, neuroendocrine tumor marker antibody, and synapse density marker antibody.

Application Notes

Optimal dilution of the recombinant Synaptophysin antibody should be determined by the researcher.

Immunogen

A portion of amino acids 224-313 from the human protein was used as the immunogen for the recombinant Synaptophysin antibody.

Storage

Store the recombinant Synaptophysin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).