

Recombinant Synaptophysin Antibody / SYP [clone SYP/4389R] (V9165)

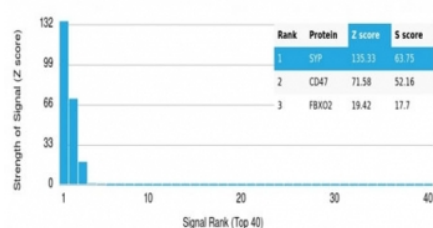
| Catalog No. | Formulation | Size |
|----------------|---|--------|
| V9165-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 100 ug |
| V9165-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide | 20 ug |
| V9165SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

Recombinant **RABBIT MONOCLONAL**

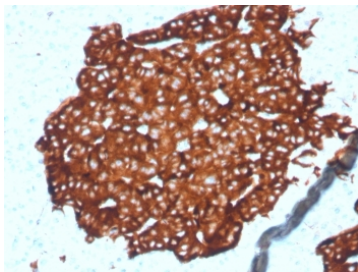
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| | |
|--------------------|---|
| Availability | 1-3 business days |
| Species Reactivity | Human |
| Format | Purified |
| Host | Rabbit |
| Clonality | Recombinant Rabbit Monoclonal |
| Isotype | Rabbit IgG |
| Clone Name | SYP/4389R |
| Purity | Protein A/G affinity |
| UniProt | P08247 |
| Localization | Cytoplasmic |
| Applications | Immunohistochemistry (FFPE) : 1-2ug/ml |
| Limitations | This recombinant Synaptophysin antibody is available for research use only. |

Human Protein Microarray Specificity Validated



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant Synaptophysin antibody (clone SYP/4389R). These results demonstrate the foremost specificity of the SYP/4389R mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



IHC staining of FFPE human pancreatic tissue with recombinant Synaptophysin antibody (clone SYP/4389R). 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 among the most abundant presynaptic vesicle proteins, where it regulates vesicle recycling and neurotransmitter release. Because synaptophysin is expressed in nearly all neurons and is widely used as a neuroendocrine tumor marker, Recombinant Synaptophysin antibody is essential in neuroscience, pathology, and oncology.

Synaptophysin is a 38 kDa integral membrane protein with four transmembrane domains. It plays a central role in synaptic vesicle endocytosis and exocytosis, ensuring proper neuronal communication. Synaptophysin expression provides a reliable marker of synapse density and distribution, making it indispensable in studies of neurodevelopment, synaptic plasticity, and neurological disease. In oncology, synaptophysin is used diagnostically to classify neuroendocrine tumors, including pheochromocytomas and small cell lung carcinomas.

The Recombinant Synaptophysin antibody clone SYP/4389R provides consistent and specific recognition. Recombinant technology ensures lot-to-lot uniformity, minimizing variability across studies. Clone SYP/4389R has been cited in peer-reviewed publications addressing synapse biology, neurodegeneration, and neuroendocrine pathology. Its reproducibility supports immunohistochemistry, immunoblotting, and immunofluorescence.

Research using clone SYP/4389R has demonstrated its value in quantifying synapse density and monitoring synaptic remodeling in neurodegenerative disease models. In oncology, this antibody has confirmed neuroendocrine differentiation in tumors, supporting accurate classification and diagnosis. Beyond pathology, it has supported developmental research into synaptogenesis and neural circuit assembly, clarifying how synaptophysin participates in vesicle trafficking and plasticity.

NSJ Bioreagents supplies this Recombinant Synaptophysin antibody to support neuroscience, oncology, and developmental research. Alternate designations include SYP antibody, synaptic vesicle glycoprotein antibody, neuroendocrine tumor marker antibody, presynaptic vesicle protein 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 274-313 was used as the immunogen for the recombinant Synaptophysin antibody.

Storage

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

