

Datasheet: 8479-0004

BATCH NUMBER 161006

Description:	MOUSE ANTI SYNAPTOPHYSIN
Specificity:	SYNAPTOPHYSIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	SY38
Isotype:	IgG1
Quantity:	25 µg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
Western Blotting	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Human

Species Cross Reactivity

Reacts with: Rat, Mouse, Bovine, Western grey kangaroo

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG - liquid

Preparation

Purified IgG prepared by affinity chromatography on Protein A.

Buffer Solution

Phosphate buffered saline.

Preservative

0.09% Sodium Azide, 0.5% Bovine Serum Albumin.

Stabilisers

Approx. Protein Concentrations 0.05 mg/ml

Immunogen Synaptophysin presynaptic vesicles.

External Database Links

UniProt:

[P08247](#) [Related reagents](#)

Entrez Gene:

[6855](#) SYP [Related reagents](#)

RRID AB_2286948

Specificity

Mouse anti Human synaptophysin antibody, clone SY38 recognizes synaptophysin, also known as Major synaptic vesicle protein p38. Synaptophysin is a 313 amino acid ~38kDa multi pass transmembrane glycoprotein containing a single [MARVEL](#) domain. Synaptophysin is characteristic of small neurosecretory vesicles and is also present in neuroendocrine cells of neuronal and epithelial phenotype ([UniProt: P08247](#)). Synaptophysin is widely used as a marker for nerve terminals and for differentiating neuroendocrine tumours.

Mouse anti Human synaptophysin antibody, clone SY38 has been used to detect synaptophysin in a number of neuronal and adrenal tumours including, pheochromocytomas, ganglioneuromas ([Pace et al. 2002](#)), neuroendocrine tumours of epithelial origin; pancreatic islet cell carcinoma, bronchial and gastrointestinal carcinoids and medullary carcinoma of the thyroid ([Wiedenmann et al. 1986](#)).

References

1. Thiele, C. *et al.* (2000) Cholesterol binds to synaptophysin and is required for biogenesis of synaptic vesicles. [Nat Cell Biol. 2: 42-9.](#)
2. Cavalla, P. and Schiffer, D. (2001) Neuroendocrine tumors in the brain. [Ann Oncol. 12 Suppl 2:S131-4.](#)
3. Leube, R.E. (1995) The topogenic fate of the polytopic transmembrane proteins, synaptophysin and connexin, is determined by their membrane-spanning domains. [J Cell Sci. 108: 883-94.](#)
4. Kahle, P.J. *et al.* (2000) Subcellular localization of wild-type and Parkinson's disease-associated mutant alpha -synuclein in human and transgenic mouse brain. [J Neurosci. 20: 6365-73.](#)
5. González-Jamett, A.M. *et al.* (2010) The association of dynamin with synaptophysin regulates quantal size and duration of exocytotic events in chromaffin cells. [J Neurosci. 30: 10683-91.](#)
6. Kasprzak, A. *et al.* (2007) Selected markers (chromogranin A, neuron-specific enolase, synaptophysin, protein gene product 9.5) in diagnosis and prognosis of neuroendocrine pulmonary tumours. [Pol J Pathol. 58: 23-33.](#)
7. Spiwoкс-Becker, I. *et al.* (2001) Synaptic vesicle alterations in rod photoreceptors of synaptophysin-deficient mice. [Neuroscience. 107: 127-42.](#)

8. Etherington, S. J. *et al.* (2016) Heterochronic neuromuscular junction development in an Australian marsupial (*Macropus fuliginosus*) [J Zool. Jun 26 \[Epub ahead of print\]](#)
9. Skripuletz, T. *et al.* (2013) Astrocytes regulate myelin clearance through recruitment of microglia during cuprizone-induced demyelination. [Brain. 136 \(Pt 1\): 147-67.](#)
10. Grossi, A.B. *et al.* (2013) Histologic and immunohistochemical classification of 41 bovine adrenal gland neoplasms. [Vet Pathol. 50 \(3\): 534-42.](#)

Further Reading 1. Wiedenmann, B. *et al.* (1991) Synaptophysin. A widespread constituent of small neuroendocrine vesicles and a new tool in tumor diagnosis. [Acta Oncol. 30: 435-40.](#)

Storage Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/8479-0004>
10041

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)

Goat Anti Mouse IgG (STAR76...) [RPE](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

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