

Datasheet: 8479-0004

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.
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A.
Buffer Solution	Phosphate buffered saline.
Preservative Stabilisers	0.09% Sodium Azide, 0.5% Bovine Serum Albumin.
Approx. Protein Concentrations	0.05 mg/ml
Immunogen	Synaptophysin presynaptic vesicles.
External Database Links	UniProt: P08247 Related reagents

Entrez Gene:

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

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. Spiwox-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.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®549 , DyLight®649 , DyLight®680 , DyLight®800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
----------------------------------	---	------------------	---	---------------	---

'M261796:140928'

Printed on 21 Jun 2018