

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. 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 from ascites

Buffer Solution

Phosphate buffered saline.

Preservative Stabilisers

<0.1% Sodium Azide (NaN₃)

0.5% Bovine Serum Albumin

Approx. Protein Concentrations	0.05 mg/ml
Immunogen	Synaptophysin presynaptic vesicles.
External Database Links	<p>UniProt: P08247 Related reagents</p> <p>Entrez Gene: 6855 SYP Related reagents</p>
RRID	AB_2286948
Specificity	<p>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.</p> <p>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).</p>
References	<ol style="list-style-type: none"> 1. Thiele, C. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. Spiwoks-Becker, I. <i>et al.</i> (2001) Synaptic vesicle alterations in rod photoreceptors of synaptophysin-deficient mice. Neuroscience. 107: 127-42. 8. Etherington, S. J. <i>et al.</i> (2016) Heterochronic neuromuscular junction development in an Australian marsupial (<i>Macropus fuliginosus</i>) J Zool. Jun 26 [Epub ahead of print]

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10. Grossi, A.B. *et al.* (2013) Histologic and immunohistochemical classification of 41 bovine adrenal gland neoplasms. [Vet Pathol. 50 \(3\): 534-42.](#)
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12. Paasila, P.J. *et al.* (2021) Ground state depletion microscopy as a tool for studying microglia-synapse interactions. [J Neurosci Res. 99 \(6\): 1515-32.](#)
13. Gudi, V. *et al.* (2017) Synaptophysin Is a Reliable Marker for Axonal Damage. [J Neuropathol Exp Neurol. 76 \(2\): 109-25.](#)
14. Hassan, R. *et al.* (2020) The prospective role of mesenchymal stem cells exosomes on circumvallate taste buds in induced Alzheimer's disease of ovariectomized albino rats: (Light and transmission electron microscopic study). [Arch Oral Biol. 110: 104596.](#)
15. Gingele, S. *et al.* (2020) Delayed Demyelination and Impaired Remyelination in Aged Mice in the Cuprizone Model. [Cells. 9 \(4\): 945](#)

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

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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

- | | |
|---|---|
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Rabbit Anti Mouse IgG (STAR12...) | RPE |
| Goat Anti Mouse IgG (STAR70...) | FITC |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | Alk. Phos. , HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |
| Goat Anti Mouse IgG (STAR76...) | RPE |
| 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 (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [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
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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M405770:220916'

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