Datasheet: 8479-0004 BATCH NUMBER 162934

Description:	MOUSE ANTI SYNAPTOPHYSIN
Specificity:	SYNAPTOPHYSIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	SY38
lsotype:	lgG1
Quantity:	25 µg

Product Details

Applications This product has been reported to work in the following applications. This inform					s. 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 <u>www.bio-</u> 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 us	se in such	procedur	es. Suggested working	g dilutions are given as	
	a guide only. It is recomn	nended the	at the use	r titrates the product for	or use in their own	
system using appropriate negative/positive controls.				ontrols.		
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Target Species	Human					
Species Cross	Reacts with: Rat, Mouse,	, Bovine, V	Vestern g	rey kangaroo		
Reactivity N.B. Antibody reactivity and working conditions may vary between species. Cro				species. Cross		
	reactivity is derived from	testing wit	thin our la	boratories, peer-reviev	wed publications or	
	personal communications	s from the	originator	s. Please refer to refe	rences indicated for	
	further information					
Product Form	Purified IgG - liguid					
Preparation	Purified IgG prepared by affinity chromatography on Protein A.					
Buffer Solution	Phosphate buffered salin	e.				
Preservative	<0.1% Sodium Azide (NaN ₃)					

Stabilisers	0.5% Bovine Serum Albumin
Approx. Protein Concentrations	0.05 mg/ml
Immunogen	Synaptophysin presynaptic vesicles.
External Database Links	UniProt: <u>P08247</u> <u>Related reagents</u> 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 <u>MARVEL</u> domain. Synaptophysin is characteristic of small neurosecretory vesicles and is also present in neuroendocrine cells of neuronal and epithelial phenotype (<u>UniProt: P08247</u>). 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 (<u>Pace <i>et al.</i> 2002</u>), neuroendocrine tumours of epithelial origin; pancreatic islet cell carcinoma, bronchial and gastrointestinal carcinoids and medullary carcinoma of the thyroid (<u>Wiedenmann <i>et al.</i> 1986</u>).
References	 Thiele, C. <i>et al.</i> (2000) Cholesterol binds to synaptophysin and is required for biogenesis of synaptic vesicles. <u>Nat Cell Biol. 2: 42-9.</u> Cavalla, P. and Schiffer, D. (2001) Neuroendocrine tumors in the brain. <u>Ann Oncol. 12</u> <u>Suppl 2:S131-4.</u> Leube, R.E. (1995) The topogenic fate of the polytopic transmembrane proteins, synaptophysin and connexin, is determined by their membrane-spanning domains. <u>J Cell</u> <u>Sci. 108: 883-94.</u> 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. <u>J Neurosci. 20:</u> <u>6365-73.</u> 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. <u>J Neurosci.</u> <u>30: 10683-91.</u> 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. <u>Pol J Pathol. 58: 23-33.</u> Spiwoks-Becker, I. <i>et al.</i> (2001) Synaptic vesicle alterations in rod photoreceptors of synaptophysin-deficient mice. <u>Neuroscience. 107: 127-42.</u>

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	microglia during cuprizone-induced demyelination. Brain. 136 (Pt 1): 147-67.
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	bovine adrenal gland neoplasms. <u>Vet Pathol. 50 (3): 534-42.</u>
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	on circumvallate taste buds in induced Alzheimer's disease of ovariectomized albino rats:
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	microglia-synapse interactions. <u>J Neurosci Res. 99 (6): 1515-32.</u>
	13. Gudi, V. <i>et al.</i> (2017) Synaptophysin Is a Reliable Marker for Axonal Damage. <u>J</u>
	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. <i>et al.</i> (2020) Delayed Demyelination and Impaired Remyelination in Aged
	Mice in the Cuprizone Model. <u>Cells. 9 (4): 945</u>
Further Reading	1. Wiedenmann, B. <i>et sal.</i> (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	Material Safety Datasheet documentation #10041 available at
Information	https://www.bio-rad-antibodies.com/SDS/8479-0004
	10041
Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12)	<u>RPE</u>
Goat Anti Mouse IgG IgA IgM (STAR87)) <u>HRP</u>
Goat Anti Mouse IgG (STAR76)	<u>RPE</u>
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>
Rabbit Anti Mouse IgG (STAR13)	<u>HRP</u>
Goat Anti Mouse IgG (Fc) (STAR120)	<u>FITC, HRP</u>
Rabbit Anti Mouse IgG (STAR9)	<u>FITC</u>

Goat Anti Mouse IgG (STAR77...)

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

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<u>HRP</u>

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M389080:210806'

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