

ARG22914 anti-Synaptophysin antibody [SP15]

Package: 100 µg

Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [SP15] recognizes Synaptophysin Mouse anti Human Synaptophysin antibody, clone SP15 recognizes human synaptophysin, also known as Major synaptic vesicle protein p38. Synaptophysin is a 313 amino acid synaptic vesicle associated protein of ~38kDa containing a single marvel domain. Synaptophysin expression is ubiquitous in synaptic vesicle membranes where it is the most abundant protein and is involved in the regulation of endocytosis (Kwon et al. 2011) Loss and atypical expression of synaptophysin is noted in conditions such as Huntindon's disease (Goto and Hirano 1990) and Alzheimer's disease (Masliah et al. 1989). Mutations in the synaptophysin gene have been identified and lead to a condition, Mental retardation, X-linked 96 (Tarpey et al. 2009). Mouse anti human synaptophysin antibody, clone SP15 has been used for the detection of synaptophysin by immunofluorescence, immunohistochemistry and western blotting on murine (Vitry et al. 2009), marmoset (Ramirez et al. 2001), rat (Barr et al. 2004), lapine (Roher et al. 2000) and human tissues (Beach et al. 1997).
Tested Reactivity	Hu, Rat, Hm, Marmoset
Tested Application	ELISA, IHC-Fr, IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	SP15
Isotype	IgM
Target Name	Synaptophysin
Species	Human
Immunogen	Crude Human synaptic immunoprecipitate.
Conjugation	Un-conjugated
Alternate Names	Synaptophysin; MRXSYP; Major synaptic vesicle protein p38; MRX96

Application Instructions

Application table	Application	Dilution
	ELISA	Assay-dependent
	IHC-Fr	Assay-dependent
	IHC-P	1:25
	WB	1:500
Application Note	IHC-P: Antigen Retrieval: Boil tissue section in Sodium citrate buffer (pH 6.0). * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

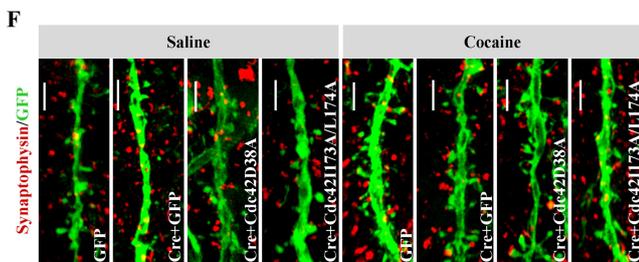
Form	Liquid
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Purification	Purified by gel filtration.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	SYP
Gene Full Name	synaptophysin
Background	This gene encodes an integral membrane protein of small synaptic vesicles in brain and endocrine cells. The protein also binds cholesterol and is thought to direct targeting of vesicle-associated membrane protein 2 (synaptobrevin) to intracellular compartments. Mutations in this gene are associated with X-linked mental retardation (XLMR). [provided by RefSeq, Aug 2011]
Function	Possibly involved in structural functions as organizing other membrane components or in targeting the vesicles to the plasma membrane. Involved in the regulation of short-term and long-term synaptic plasticity (By similarity). [UniProt]
Calculated Mw	34 kDa
PTM	Ubiquitinated; mediated by SIAH1 or SIAH2 and leading to its subsequent proteasomal degradation.

Images



ARG22914 anti-Synaptophysin antibody [SP15] IHC-Fr image

Immunohistochemistry: Mouse spine stained with ARG22914 anti-Synaptophysin antibody [SP15] at 1:25 dilution.

From Juan Li et al. *Biochim Biophys Acta Mol Basis Dis.* (2023), [doi: 10.1016/j.bbadis.2022.166569](https://doi.org/10.1016/j.bbadis.2022.166569), Fig. 6 F.