

#85852 Store at -20°C

Synapsin-2 (D6S9C) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-F	H M R	Endogenous	77	Rabbit IgG	#Q92777	6854

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Synapsin-2 (D6S9C) Rabbit mAb recognizes endogenous levels of total synapsin-2 protein

Species predicted to react based on 100% sequence homology:

Human

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly503 of human synapsin-2 protein.

Background

Synapsins, a group of at least five related members (synapsins Ia, Ib, IIa, IIb, and IIIa), are abundant brain proteins essential for regulating neurotransmitter release (1,2). All synapsins contain a short amino-terminal domain that is highly conserved and phosphorylated by PKA or CaM kinase I (1). Phosphorylation of the synapsin amino-terminal domain at Ser9 inhibits its binding to phospholipids and dissociates synapsins from synaptic vesicles (2). Synapsin proteins help control release of neurotransmitters by tethering clusters of synaptic vesicles to the actin cytoskeleton at pre-synaptic terminals (3). As might be expected given the role these proteins play in neuronal cell function, mutations in the corresponding synapsin genes have been examined for association with neurological disorders. Mutations in the corresponding SYN2 gene tentatively implicate synapsin-2 in susceptibility to schizophrenia, bipolar disorder, and autism spectrum disorders (4-6).

Background References

- Greengard, P. (1987) *Mol Neurobiol* 1, 81-119.
- Hosaka, M. et al. (1999) *Neuron* 24, 377-87.
- Cesca, F. et al. (2010) *Prog Neurobiol* 91, 313-48.
- Saviouk, V. et al. (2007) *Schizophr Res* 96, 100-11.
- Cruceanu, C. et al. (2012) *PLoS One* 7, e32680.
- Corradi, A. et al. (2014) *Hum Mol Genet* 23, 90-103.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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