

Synaptophysin (7H12) Mouse mAb

✓ 100 µl
(10 western blots)

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com
Support ■ 877-678-TECH (8324)
info@cellsignal.com
Web ■ www.cellsignal.com

New 08/12

For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #6855
Swiss-Prot Acc. #P08247

Applications W Endogenous	Species Cross-Reactivity* H, M, R	Molecular Wt. 38 kDa	Isotype Mouse IgG1**
---------------------------------	--------------------------------------	-------------------------	-------------------------

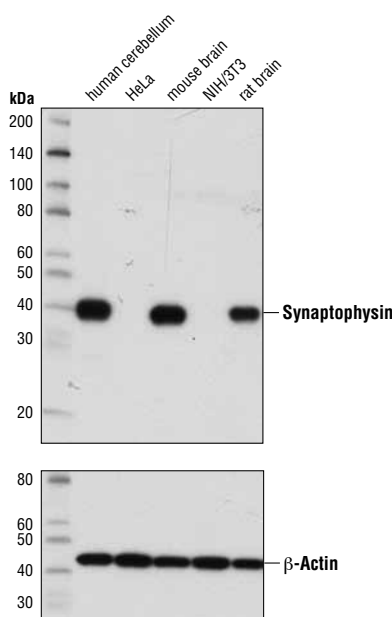
Background: Synaptophysin (SYP) is a neuronal synaptic vesicle glycoprotein that is expressed in neuroendocrine cells and neoplasms (1). Synaptophysin contains four trans-membrane domains that form a hexameric channel or gap junction-like pore (2). Synaptophysin binds to the SNARE protein synaptobrevin/VAMP, which prevents the inclusion of synaptobrevin in the synaptic vesicle fusion complex and creates a pool of synaptobrevin for exocytosis when synapse activity increases (3). Synaptophysin is also responsible for targeting synaptobrevin 2/VAMP2 to synaptic vesicles, a critical component of the fusion complex (4).

Specificity/Sensitivity: Synaptophysin (7H12) Mouse mAb recognizes endogenous levels of total synaptophysin protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human synaptophysin protein.

Background References:

- (1) Wiedenmann, B. et al. (1986) *Proc Natl Acad Sci USA* 83, 3500-4.
- (2) Valtorta, F. et al. (2004) *Bioessays* 26, 445-53.
- (3) Arthur, C.P. and Stowell, M.H. (2007) *Structure* 15, 707-14.
- (4) Bonanomi, D. et al. (2007) *Biochem J* 404, 525-34.



Western blot analysis of extracts from various tissues and cell lines using Synaptophysin (7H12) Mouse mAb (upper) or β -Actin (D6A8) Rabbit mAb #8457 (lower).

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.

***Species cross-reactivity is determined by western blot.**

****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

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

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.