Store at -20°C

#13655

Stathmin (D1Y5A) Rabbit mAb

www.cellsignal.com

100 µl (10 western blots)

Support: 877-678-TECH (8324)
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rev. 04/01/15

Entrez-Gene ID #3925
UniProt ID #P16949

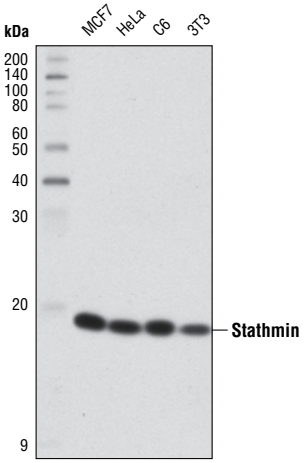
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC	H, M, R	19 kDa	Rabbit IgG**
Endogenous			

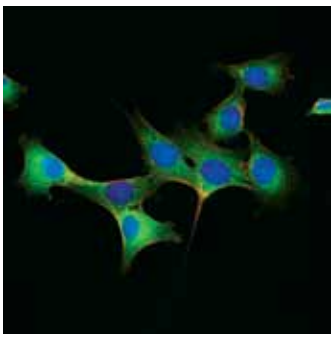
Background: Stathmin is a ubiquitously expressed microtubule destabilizing phosphoprotein that is upregulated in a number of cancers. The amino terminus of the protein contains multiple phosphorylation sites and is involved in the promotion of tubulin filament depolymerization. Phosphorylation at these sites inactivates the protein and stabilizes microtubules. Ser16 phosphorylation by CaM kinases II and IV (1,2) increases during G2/M-phase and is involved in mitotic spindle regulation (3,4). Ser38 is a target for cdc2 kinase (5) and TNF-induced cell death gives rise to reactive oxygen intermediates leading to hyperphosphorylation of stathmin (6). EGF receptor activation of Rac and cdc42 also increases phosphorylation of stathmin on Ser16 and Ser38 (7). Other closely related family members are neuronally expressed and include SCG10, SCLIP, RB3 and its splice variants RB3' and RB3". Stathmin and SCG10 have been shown to play roles in neuronal-like development in PC-12 cells (8).

Specificity/Sensitivity: Stathmin (D1Y5A) Rabbit mAb recognizes endogenous levels of total stathmin protein.

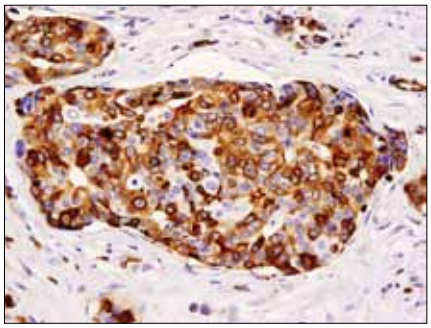
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro142 of human stathmin protein.



Western blot analysis of extracts from various cell lines using Stathmin (D1Y5A) Rabbit mAb.



Confocal immunofluorescent analysis of C2C12 cells using Stathmin (D1Y5A) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Stathmin (D1Y5A) Rabbit mAb.

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

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:2000†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

Immunofluorescence (IF-IC)	1:800

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

(1) Marklund, U. et al. (1994) *Eur J Biochem* 225, 53-60.

(2) le Gouvello, S. et al. (1998) *J Immunol* 161, 1113-22.

(3) Mistry, S.J. and Atweh, G.F. (2001) *J Biol Chem* 276, 31209-15.

(4) Gavet, O. et al. (1998) *J Cell Sci* 111 (Pt 22), 3333-46.

(5) Luo, X.N. et al. (1994) *J Biol Chem* 269, 10312-8.

(6) Vancompernolle, K. et al. (2000) *J Biol Chem* 275, 33876-82.

(7) Daub, H. et al. (2001) *J Biol Chem* 276, 1677-80.

(8) Di Paolo, G. et al. (1996) *J Cell Biol* 133, 1383-90.

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

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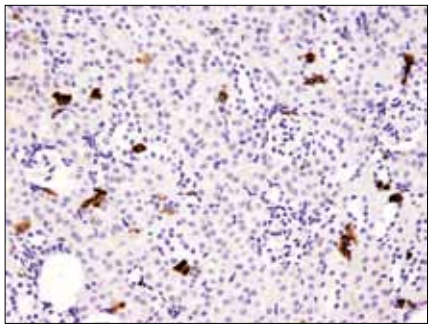
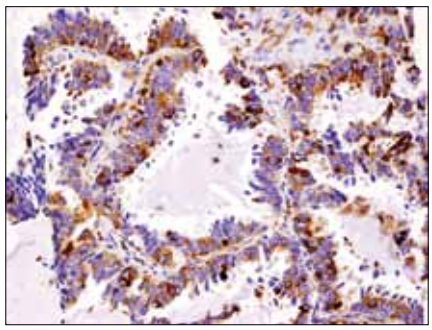
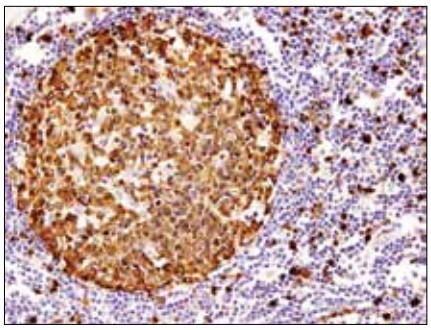
Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **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.



Immunohistochemical analysis of paraffin-embedded mouse kidney using Stathmin (D1Y5A) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using Stathmin (D1Y5A) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human lymph node using Stathmin (D1Y5A) Rabbit mAb.

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