

#3352 Store at -20°C

Stathmin Antibody


Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P	H M R Mk	Endogenous	19	Rabbit	#P16949	3925

Product Usage Information	Application	Dilution
	Western Blotting	1:1000
	Immunohistochemistry (Paraffin)	1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Stathmin Antibody detects endogenous levels of total stathmin protein. The antibody does not cross-react with related proteins such as SCG10, SCLIP and RB3.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser38 of human stathmin. Antibodies are purified by protein A and peptide affinity chromatography.	
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).	
Background References	1. Marklund, U. et al. (1994) <i>Eur J Biochem</i> 225, 53-60. 2. le Gouvello, S. et al. (1998) <i>J Immunol</i> 161, 1113-22. 3. Mistry, S.J. and Atweh, G.F. (2001) <i>J Biol Chem</i> 276, 31209-15. 4. Gavet, O. et al. (1998) <i>J Cell Sci</i> 111 (Pt 22), 3333-46. 5. Luo, X.N. et al. (1994) <i>J Biol Chem</i> 269, 10312-8. 6. Vancompernelle, K. et al. (2000) <i>J Biol Chem</i> 275, 33876-82. 7. Daub, H. et al. (2001) <i>J Biol Chem</i> 276, 1677-80. 8. Di Paolo, G. et al. (1996) <i>J Cell Biol</i> 133, 1383-90.	

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IHC-P: Immunohistochemistry (Paraffin)
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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