Revision 1

Store at -20C

#3352

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/Isotype:	UniProt ID:	Entrez-Gene Id:
W, 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) *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.

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

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

Trademarks and Patents

Limited Uses

force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.