

**Stathmin (D1Y5A) Rabbit mAb**

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

<b>Applications:</b> W, IHC-P, IF-IC	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 19	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P16949	<b>Entrez-Gene Id:</b> 3925
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**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:2000  
1:800

**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.

For a carrier free (BSA and azide free) version of this product see product #38459.

**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.

**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. Vancompernelle, 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) **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

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

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