

S6 Ribosomal Protein (5G10) Rabbit mAb

- Small 100 µl (10 western blots)
- Large 300 µl (30 western blots)

Orders ■ 877-616-CELL (2355)
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rev. 10/25/11

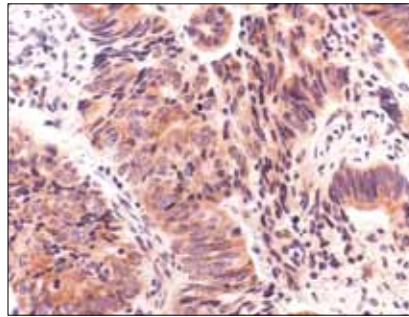
This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isoype
W, IHC-P, IF-IC, IF-F Endogenous	H, M, R, Mk	32 kDa	Rabbit IgG**

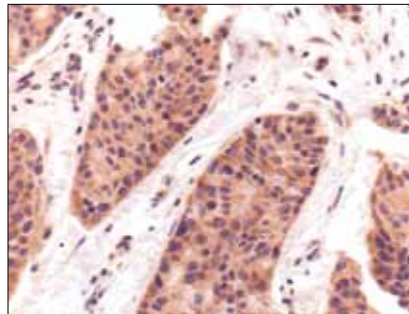
Background: One way that growth factors and mitogens effectively promote sustained cell growth and proliferation is by upregulating mRNA translation (1,2). Growth factors and mitogens induce the activation of p70 S6 kinase and the subsequent phosphorylation of the S6 ribosomal protein. Phosphorylation of S6 ribosomal protein correlates with an increase in translation of mRNA transcripts that contain an oligopyrimidine tract in their 5' untranslated regions (2). These particular mRNA transcripts (5'TOP) encode proteins involved in cell cycle progression as well as ribosomal proteins and elongation factors necessary for translation (2,3). Important S6 ribosomal protein phosphorylation sites include several residues (Ser235, Ser236, Ser240 and Ser244) located within a small, carboxy-terminal region of the S6 protein (4,5).

Specificity/Sensitivity: S6 Ribosomal Protein (5G10) Rabbit mAb detects endogenous levels of total S6 ribosomal protein independent of phosphorylation.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues of human S6 ribosomal protein.

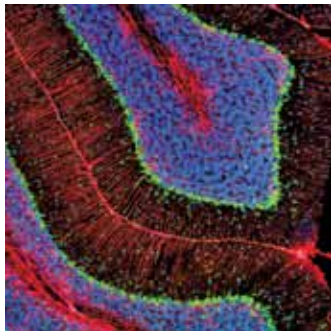


Immunohistochemical analysis of paraffin-embedded human lung carcinoma showing cytoplasmic localization using S6 Ribosomal Protein (5G10) Rabbit mAb.



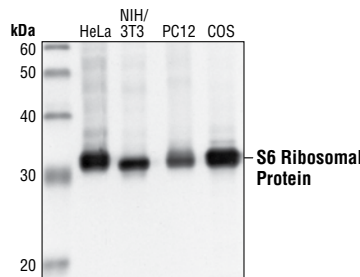
Immunohistochemical analysis of paraffin-embedded human breast carcinoma using S6 Ribosomal Protein (5G10) Rabbit mAb.

mouse brain



Confocal immunofluorescent analysis of mouse brain using S6 Ribosomal Protein (5G10) Rabbit mAb (green) and GFAP (GA5) Mouse mAb #3670 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Western blot analysis of extracts from HeLa, NIH/3T3, PC12 and COS cells, using S6 Ribosomal Protein (5G10) Rabbit mAb.



Entrez-Gene ID #6194
Swiss-Prot Acc. #P62753

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.

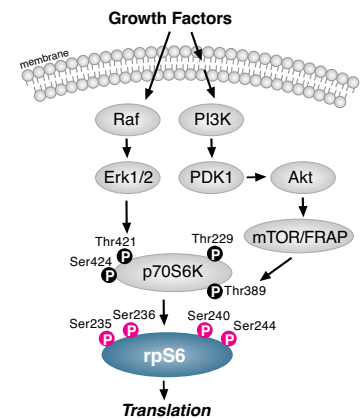
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunohistochemistry (Paraffin)	1:100†
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)	1:100
Immunofluorescence (IF-F)	1:100

For application 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 companion products.



DRAQ5® is a registered trademark of Biostatus Limited.

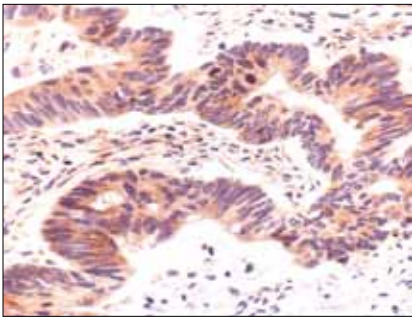
Rabbit monoclonal antibody is produced under license (granting certain rights including those under U. S. Patents No. 5,675,063 and 7,429,487) from Eptomics, Inc.

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.

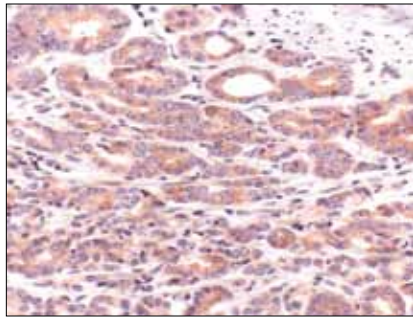
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide

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

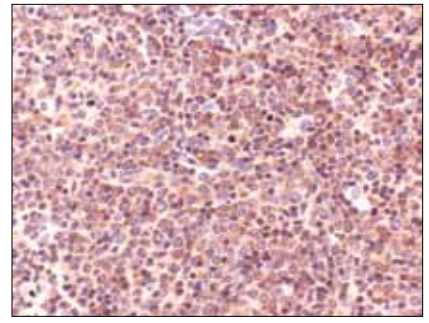
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



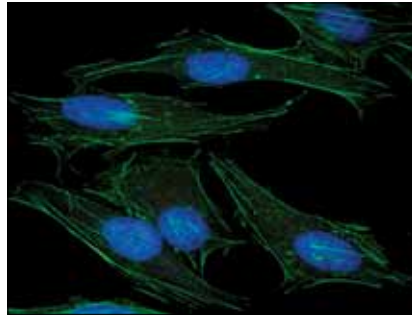
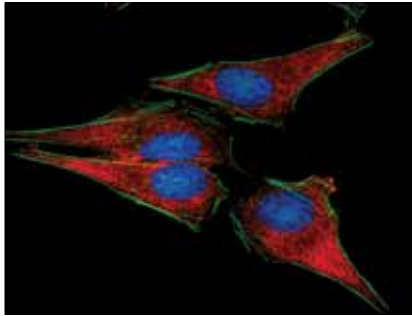
Immunohistochemical analysis of paraffin-embedded human colon carcinoma using S6 Ribosomal Protein (5G10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human prostate carcinoma using S6 Ribosomal Protein (5G10) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human Non-Hodgkin's lymphoma, using S6 Ribosomal Protein (5G10) Rabbit mAb.



Confocal immunofluorescent images of HeLa cells labeled with S6 Ribosomal Protein (5G10) Rabbit mAb (red, left) compared to an isotype control (right). Actin filaments have been labeled with fluorescein phalloidin. Blue pseudocolor = DRAQ5[®] #4084 (fluorescent DNA dye).

Background References:

- (1) Dufner, A. and Thomas, G. (1999) *Exp. Cell Res.* 253, 100–109.
- (2) Peterson, R.T. and Schreiber, S.L. (1998) *Curr. Biol.* 8, R248–R250.
- (3) Jefferies, H.B. et al. (1997) *EMBO J.* 16, 3693–3704.
- (4) Ferrari, S. et al. (1991) *J. Biol. Chem.* 266, 22770–22775.
- (5) Flotow, H. and Thomas, G. (1992) *J. Biol. Chem.* 267, 3074–3078.