

**p190-A RhoGAP (D8Q6C) Rabbit mAb**

**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.**

<b>Applications:</b> W, IP	<b>Reactivity:</b> H M R Hm Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 190	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9NRY4	<b>Entrez-Gene Id:</b> 2909
-------------------------------	-----------------------------------	-----------------------------------	-------------------------	--------------------------------------	-------------------------------	--------------------------------

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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.

**Specificity/Sensitivity**

p190-A RhoGAP (D8Q6C) Rabbit mAb recognizes endogenous levels of total p190-A RhoGAP protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn585 of human p190-A RhoGAP protein.

**Background**

Rho family GTPases are key regulators of diverse processes such as cytoskeletal organization, cell growth and differentiation, transcriptional regulation, and cell adhesion/motility. The activities of these proteins are controlled primarily through guanine nucleotide exchange factors (GEFs) that facilitate the exchange of GDP for GTP, promoting the active (GTP-bound) state, and GTPase activating proteins (GAPs) that promote GTP hydrolysis and the inactive (GDP-bound) state (1,2).

The p190 RhoGAP proteins are widely expressed Rho family GAPs. p190-A has been characterized as a tumor suppressor, and research studies have shown that loss or rearrangement of the chromosomal region containing the gene for p190-A is linked to tumor development (3,4). p190-A binds the mitogen-inducible transcription factor TFII-I, sequestering it in the cytoplasm and inhibiting its activity. Phosphorylation of p190-A at Tyr308 reduces its affinity for TFII-I, relieving the inhibition (5). p190-A can also inhibit growth factor-induced gliomas in mice (6) and affect cleavage furrow formation and cytokinesis in cultured cells (7).

Mice lacking p190-B RhoGAP show excessive Rho activation and a reduction in activation of the transcription factor CREB (8). Cells deficient in p190-B display defective adipogenesis (9). There is increasing evidence that p190 undergoes tyrosine phosphorylation, which activates its GAP domain (9-11). Levels of tyrosine phosphorylation are enhanced by Src overexpression (10,11). IGF-I treatment downregulates Rho through phosphorylation and activation of p190-B RhoGAP, thereby enhancing IGF signaling implicated in adipogenesis (9).

**Background References**

1. Peck, J. et al. (2002) *FEBS Lett* 528, 27-34.
2. Moon, S.Y. and Zheng, Y. (2003) *Trends Cell Biol* 13, 13-22.
3. Wang, Z. et al. (1996) *Cell Growth Differ* 7, 123-33.
4. Tikoo, A. et al. (2000) *Gene* 257, 23-31.
5. Jiang, W. et al. (2005) *Mol Cell* 17, 23-35.
6. Wolf, R.M. et al. (2003) *Genes Dev* 17, 476-87.
7. Su, L. et al. (2003) *J Cell Biol* 163, 571-82.
8. Sordella, R. et al. (2002) *Dev Cell* 2, 553-65.
9. Sordella, R. et al. (2003) *Cell* 113, 147-58.
10. Chang, J.H. et al. (1995) *J Cell Biol* 130, 355-68.
11. Roof, R.W. et al. (1998) *Mol Cell Biol* 18, 7052-63.

**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 **IP:** Immunoprecipitation

## Cross-Reactivity Key

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

## Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit [cellsignal.com/trademarks](http://cellsignal.com/trademarks) for more information.

## Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no 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.