

#2562 Store at -20°C

p190-B RhoGAP Antibody



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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk B	Endogenous	190	Rabbit	#Q13017	394

Product Usage Information	Application Western Blotting	Dilution 1:1000
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	p190-B RhoGAP Antibody detects endogenous levels of total RhoGAP protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to a region surrounding Lys296 of human p190-B RhoGAP. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>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).</p> <p>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).</p> <p>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).</p>	
Background References	<ol style="list-style-type: none"> 1. Peck, J. et al. (2002) <i>FEBS Lett</i> 528, 27-34. 2. Moon, S.Y. and Zheng, Y. (2003) <i>Trends Cell Biol</i> 13, 13-22. 3. Wang, Z. et al. (1996) <i>Cell Growth Differ</i> 7, 123-33. 4. Tikoo, A. et al. (2000) <i>Gene</i> 257, 23-31. 5. Jiang, W. et al. (2005) <i>Mol Cell</i> 17, 23-35. 6. Wolf, R.M. et al. (2003) <i>Genes Dev</i> 17, 476-87. 7. Su, L. et al. (2003) <i>J Cell Biol</i> 163, 571-82. 8. Sordella, R. et al. (2002) <i>Dev Cell</i> 2, 553-65. 9. Sordella, R. et al. (2003) <i>Cell</i> 113, 147-58. 10. Chang, J.H. et al. (1995) <i>J Cell Biol</i> 130, 355-68. 11. Roof, R.W. et al. (1998) <i>Mol Cell Biol</i> 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**Cross-Reactivity Key****Trademarks and Patents****Limited Uses****WB:** Western Blotting

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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