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#3965

Ras Antibody

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

Applications: W	Reactivity: H M R Mk Dm Pg Sc	Sensitivity: Endogenous	MW (kDa): 21	Source/Isotype: Rabbit	UniProt ID: #P01112, #O14807, #P10301, #P01111, #P01116	Entrez-Gene Id: 3265, 22808, 6237, 4893, 3845
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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	Ras Antibody detects endogenous levels of total K-Ras, H-Ras, and N-Ras. This antibody may also cross-react with R-Ras and M-Ras.	
Species predicted to react based on 100% sequence homology	Hamster, Chicken, Xenopus, Zebrafish, Dog	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues close to the amino-terminus of human K-Ras. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	The 21 kDa guanine-nucleotide binding proteins (K-Ras, H-Ras, and N-Ras) cycle between active (GTP-bound) and inactive (GDP-bound) forms (1). Receptor tyrosine kinases and G protein-coupled receptors activate Ras, which then stimulates the Raf-MEK-MAPK pathway (2-4). GTPase-activating proteins (GAPs) normally facilitate the inactivation of Ras. However, research studies have shown that in 30% of human tumors, point mutations in Ras prevent the GAP-mediated inhibition of this pathway (5). The most common oncogenic Ras mutation found in tumors is Gly12 to Asp12 (G12D), which prevents Ras inactivation, possibly by increasing the overall rigidity of the protein (5,6).	
Background References	<ol style="list-style-type: none"> 1. Boguski, M.S. and McCormick, F. (1993) <i>Nature</i> 366, 643-54. 2. Avruch, J. et al. (1994) <i>Trends Biochem Sci</i> 19, 279-83. 3. Buday, L. and Downward, J. (1993) <i>Cell</i> 73, 611-20. 4. Huang, D.C. et al. (1993) <i>Mol Cell Biol</i> 13, 2420-31. 5. Bos, J.L. (1989) <i>Cancer Res</i> 49, 4682-9. 6. Ma, J. and Karplus, M. (1997) <i>J Mol Biol</i> 274, 114-31. 	

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
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey Dm: D. melanogaster Pg: Pig Sc: S. cerevisiae
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