

#3992 Store at -20°C

Gα (pan) Antibody


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Applications: WB, IP, IHC-P	Reactivity: H M R Mk B	Sensitivity: Endogenous	MW (kDa): 39, 41	Source: Rabbit	UniProt ID: #P19086, #P50148, #P29992	Entrez-Gene Id: 2781, 2776, 2767
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Product Usage Information	Application Western Blotting Immunoprecipitation Immunohistochemistry (Paraffin)	Dilution 1:1000 1:50 1:100
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	Gα (pan) Antibody detects total levels of endogenous G protein alpha subunits. The antibody may not detect G(12)-α, G(13)-α (13), G(s)-α (s) and G(olf)-α.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues of human guanine nucleotide-binding protein Gα (q) subunit. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Heterotrimeric guanine nucleotide-binding proteins (G proteins) consist of α, β and γ subunits and mediate the effects of hormones, neurotransmitters, chemokines, and sensory stimuli. To date, over 20 known Gα subunits have been classified into four families, Gα(s), Gα(i/o), Gα(q) and Gα(12), based on structural and functional similarities (1,2). Phosphorylation of Tyr356 of Gα(q)/Gα(11) is essential for activation of the G protein, since phenylalanine substitution for Tyr356 changes the interaction of Gα with receptors and abolishes ligand-induced IP ₃ formation (3).	
Background References	1. Offermanns, S. (2001) <i>Oncogene</i> 20, 1635-42. 2. Pierce, K.L. et al. (2002) <i>Nat Rev Mol Cell Biol</i> 3, 639-50. 3. Umemori, H. et al. (1997) <i>Science</i> 276, 1878-81.	

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	WB: Western Blotting IP: Immunoprecipitation IHC-P: Immunohistochemistry (Paraffin)
Cross-Reactivity Key	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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