

#3904 Store at -20C

Gα(z) Antibody



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

Applications: WB	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source: Rabbit	UniProt ID: #P19086	Entrez-Gene Id: 2781
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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	Gα(z) Antibody detects endogenous levels of total Gα(z) protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to human Gα(z). Antibodies are purified using protein A and peptide affinity chromatography.	
Background	<p>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 IP₃ formation (3).</p> <p>Gα(z) stands out from other G proteins because it lacks an ADP-ribosylation consensus site for pertussis toxin, giving it a possible role in signal transduction pathways resistant to the toxin, such as phospholipase C (4). Gα(z) is phosphorylated and activated by protein kinase C (PKC) at Ser27 (5,6).</p>	
Background References	<ol style="list-style-type: none"> Offermanns, S. (2001) <i>Oncogene</i> 20, 1635-42. Pierce, K.L. et al. (2002) <i>Nat Rev Mol Cell Biol</i> 3, 639-50. Umemori, H. et al. (1997) <i>Science</i> 276, 1878-81. Fong, H.K. et al. (1988) <i>Proc Natl Acad Sci USA</i> 85, 3066-70. Fields, T.A. and Casey, P.J. (1995) <i>J Biol Chem</i> 270, 23119-25. Ho, M.K. et al. <i>Biol Signals Recept</i> 9, 21-8. 	

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
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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