

#3975 Store at -20°C

Gα(o) 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	Endogenous	40	Rabbit	#P09471	2775

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(o) Antibody detects endogenous levels of total Gα(o) protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg15 of human Gα(o). Antibodies are purified by 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(o) is the most abundant G protein in the brain and couples to serotonin, dopamine, GABA (B), opioid, glutamate and cholinergic receptors (4). Gα(o) ^{-/-} mice have neurological defects such as tremors, seizures and poor motor coordination (5).</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. Jiang, M. and Bajpayee, N.S. (2009) <i>Neurosignals</i> 17, 23-41. Jiang, M. et al. (1998) <i>Proc Natl Acad Sci USA</i> 95, 3269-74. 	

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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