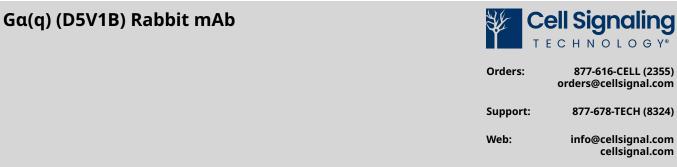
Store at -20C

t373



3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 40	Source/Isotype: Rabbit IgG	UniProt ID: #P50148	Entrez-Gene Id: 2776
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, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.				
Specificity/Sensitivity		$G\alpha(q)$ (D5V1B) Rabbit mAb recognizes endogenous levels of total $G\alpha(q)$ protein.				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asn126 of human $G\alpha(q)$ protein.				
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 G α subunits have been classified into four families, G α (s), G α (i/o), G α (q) and G α (12), based on structural and functional similarities (1,2). Phosphorylation of Tyr356 of G α (q)/G α (11) is essential for activation of the G protein, since phenylalanine substitution for Tyr356 changes the interaction of G α with receptors and abolishes ligand-induced IP ₃ formation (3). The G α (q) guanine nucleotide-binding protein mediates communication between cell surface receptors and the key signal transduction enzyme phospholipase C- β (4). Mutations in the corresponding <i>GNAQ</i> gene can result in Sturge-Weber syndrome, a neurological and skin disorder characterized by facial port-wine stains, glaucoma, seizures, and mental retardation (5).				
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. 4. Hubbard, K.B. and Hepler, J.R. (2006) <i>Cell Signal</i> 18, 135-50. 5. Shirley, M.D. et al. (2013) <i>N Engl J Med</i> 368, 1971-9.				
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 nonfat dry milk, 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				
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