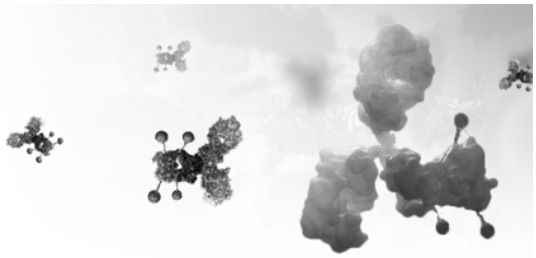

Mouse anti-Human Gαq monoclonal antibody, clone 20/HBR (CABT-B9216)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human Gαq aa. 22-31
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat, Chicken, Dog
Clone	20/HBR
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	Unconjugated
Applications	WB; IF
Format	Liquid
Concentration	250 μg/ml
Size	50 μg, 150 μg
Buffer	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Storage	Store undiluted at -20°C.

BACKGROUND

Introduction	The GTP binding regulatory proteins (G proteins) consist of three subunits: α, β, and γ. These

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heterotrimeric proteins function at membranes to relay signals from cell surface receptors to intracellular effectors. The α subunit is unique for each G protein and contains the site of GTP binding and hydrolysis, as well sites for receptor and effector interactions. The βγ subunit complex interacts directly with receptors and the α subunit. The Gα family includes four families: the Gαs family including Gαs, Gαo1f, and Gαt, the Gαi family including Gαi, Gαo, and Gαz, the Gαq/Gα11 family and the Gα12/13 family. The Gαq protein is 88% homologus with Gα11 and both are widely expressed. These G proteins activate phospholipase C proteins, which induce calcium signaling events. G protein coupled receptors (GPCRs) involved in regulating Wnt signaling activate Gαq, phospholipase Cβ, and induce calcium-dependent activation of calpain. These events promote β-catenin nuclear export and proteolysis. Gαq has also been implicated in metabotropic glutamate receptor signaling. Thus, Gαq isoforms activate phospholipase C proteins in various G-protein coupled receptor pathways.

Keywords Gq alpha subunit ; Gαq; Gq protein; G protein subunit

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