

Datasheet for ABIN968914
anti-GNAQ antibody (AA 22-31)[Go to Product page](#)[2 Images](#)[3 Publications](#)

Overview

Quantity:	50 µg
Target:	GNAQ
Binding Specificity:	AA 22-31
Reactivity:	Human, Mouse, Rat, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GNAQ antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human Galphaq aa. 22-31
Clone:	10-GAQ
Isotype:	IgG1
Cross-Reactivity:	Mouse (Murine), Rat (Rattus), Chicken, Dog (Canine)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	GNAQ
Alternative Name:	Galpha q (GNAQ Products)
Background:	<p>The GTP binding regulatory proteins (G proteins) consist of three subunits: alpha, beta, and gamma. These heterotrimeric proteins function at membranes to relay signals from cell surface receptors to intracellular effectors. The alpha 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 betagamma subunit complex interacts directly with receptors and the alpha subunit. The Galpha family includes four families: the Galphas family including Galphas , Galphao1f, and Galphat, the Galphai family including Galphai, Galphao, and Galphaz, the Galphaq/Galpa11 family and the Galpha12/13 family. The Galphaq protein is 88% homologous with Galpha11 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 Galphaq, phospholipase Cbeta, and induce calcium-dependent activation of calpain. These events promote beta-catenin nuclear export and proteolysis. Galphaq has also been implicated in metabotropic glutamate receptor signaling. Thus, Galphaq isoforms activate phospholipase C proteins in various G-protein coupled receptor pathways.</p>
Molecular Weight:	42 kDa
Pathways:	JAK-STAT Signaling , Thyroid Hormone Synthesis , Myometrial Relaxation and Contraction

Application Details

Comment:	Related Products: ABIN968537, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide

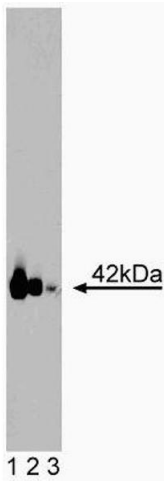
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

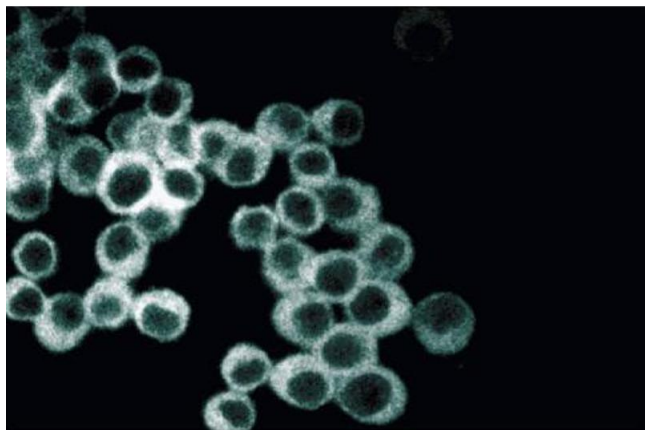
Product cited in:	<p>Dutt, Kjoller, Giel, Hall, Toksoz: "Activated Galphaq family members induce Rho GTPase activation and Rho-dependent actin filament assembly." in: FEBS letters, Vol. 531, Issue 3, pp. 565-9, (2002) (PubMed).</p> <p>Li, lyengar: "Calpain as an effector of the Gq signaling pathway for inhibition of Wnt/beta - catenin-regulated cell proliferation." in: Proceedings of the National Academy of Sciences of the United States of America, Vol. 99, Issue 20, pp. 13254-9, (2002) (PubMed).</p> <p>Strathmann, Simon: "G protein diversity: a distinct class of alpha subunits is present in vertebrates and invertebrates." in: Proceedings of the National Academy of Sciences of the United States of America, Vol. 87, Issue 23, pp. 9113-7, (1991) (PubMed).</p>
-------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Images



Western Blotting

Image 1. Western blot analysis of Galphaq on a Jurkat cell lysate (Human T-cell leukemia, ATCC TIB-152). Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-Galphaq antibody.



Immunofluorescence

Image 2. Immunofluorescence staining of PC12 cells (Rat neuroblastoma, ATCC CRL-1721) treated with NGF. PC12 cells were serum starved for 1 hour and then stimulated with 100 ng/mL NGF for 10 minutes at 37°C.