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Anti-Guanine nucleotide binding protein (G protein), q polypeptide (GANQ), Rabbit-Polyclonal Antibody

Catalog No. GB-30070 **Quantity:** 100μg **Applications:** ELISA
Antigen species: Human **Reactivity:** Human, mouse, bovine
Host species: Rabbit **Form:** Peptide affinity purified antibody

Target description

Guanine nucleotide-binding proteins are a family of heterotrimeric proteins that couple cell surface, 7-transmembrane domain receptors to intracellular signaling pathways. Receptor activation catalyzes the exchange of GTP for GDP bound to the inactive G protein alpha subunit resulting in a conformational change and dissociation of the complex. The G protein alpha and beta-gamma subunits are capable of regulating various cellular effectors. Activation is terminated by a GTPase intrinsic to the G-alpha subunit. G-alpha-q is the alpha subunit of one of the heterotrimeric GTP-binding proteins that mediates stimulation of phospholipase C-beta.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located within the internal G_alpha domain (a.a. 19-358) of human guanine nucleotide binding protein (G protein), q polypeptide (GNAQ).

Application

The antibody titer is more than 156K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/1,000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immuno-histochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-luteinizing hormone/choriogonado-tropin receptor (LHCGR) pAb (GB-30071)
2. Anti-adrenergic, beta-1-, receptor (ADRB1) pAb (GB-30072)
3. Anti-adrenergic, beta-2-, receptor, surface (ADRB2) pAb (GB-30073)
4. Anti-angiotensin II receptor, type 1 (AGTR1) pAb (GB-30074).
5. Anti-angiotensin II receptor, type 2 (AGTR2) pAb (GB-30075).

Ab dilution	Pre-bleed	Purified-Ab
1:10,000	0.051	0.586
1:100,000	0.040	0.145
1:1,000,000	0.037	0.084
Titer		**156.2 K**

Concentration of test purified pAb is 1 mg/ml

ELISA Protocol

Antigen is coated on EIA strips at 1μg per well. Add 200μl of blocking buffer and then wash wells with PBST buffer. Pre-bleed serum and peptide specific purified antibody GB-30070 is diluted in series as 10^4~10^6 folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plate and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as >0.1 of ABS of antiserum minus pre-bleed serum.

Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1×PBS). Store at 4°C for short-term application. For long-term storage, aliquot and store at -20°C.

References

1. Santagata, S.; Boggon, T. J.; Baird, C. L.; Gomez, C. A.; Zhao, J.; Shan, W. S.; Myszka, D. G.; Shapiro, L. G-protein signaling through tubby proteins. *Science* 292: 2041-2050, 2001.
2. Rochdi, M.D. and Parent, J.L. Galphaq-coupled receptor internalization specifically induced by Galphaq signaling regulation by EBP50. *J. Biol. Chem.* 278 (20), 17827-17837 (2003)
3. Chikumi, H., Vazquez-Prado, J., Servitja, J.M., Miyazaki, H. and Gutkind, J.S. Potent activation of RhoA by Galpha q and Gq-coupled receptors. *J. Biol. Chem.* 277 (30), 27130-27134 (2002)