abcam

Product datasheet

Anti-GNAQ antibody ab75825

★★★★★ 2 Abreviews 11 References 5 Images

Overview

Product name	Anti-GNAQ antibody
Description	Rabbit polyclonal to GNAQ
Host species	Rabbit
Specificity	The immunogen used for this product shares 66% homology with GNA11. Cross-reactivity with this protein has not been confirmed experimentally.
Tested applications	**Suitable for:** IHC-P, WB, ICC/IF, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Dog, Pig, Xenopus laevis
Immunogen	Synthetic peptide corresponding to Human GNAQ aa 1-100 conjugated to keyhole limpet haemocyanin. (Peptide available as **ab86404**)
Positive control	This antibody gave a positive signal in the following lysates: HepG2 Whole Cell; Mouse Pancreas Tissue; Mouse Kidney Tissue; Rat Liver Tissue. This antibody gave a positive result in IHC in the following FFPE tissue - Human normal lung
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab75825 in the following tested applications.

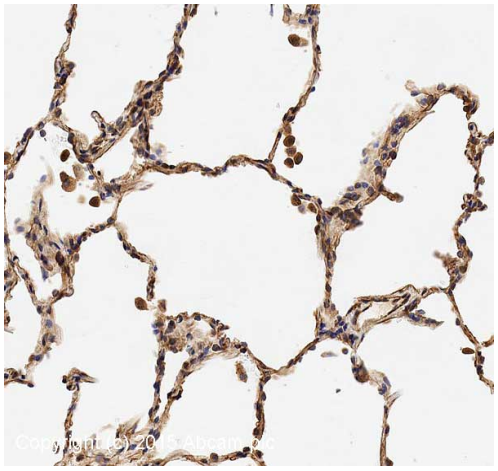
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 1 - 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).
ICC/IF	★★★★★ (2)	Use a concentration of 5 µg/ml.
IP		Use at an assay dependent concentration.

Target

Function	Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems.
Tissue specificity	Predominantly expressed in ovary, prostate, testis and colon.
Sequence similarities	Belongs to the G-alpha family. G(q) subfamily.

Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GNAQ antibody (ab75825)

IHC image of GNAQ staining in Human normal lung formalin fixed paraffin embedded tissue section*, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab75825, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

Western blot - Anti-GNAQ antibody (ab75825)

All lanes : Anti-GNAQ antibody (ab75825) at 1 µg/ml

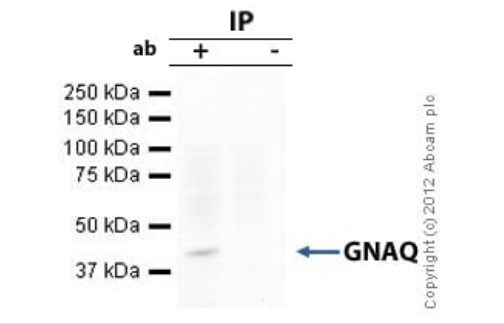
Lane 1 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
Lane 2 : Pancreas (Mouse) Tissue Lysate
Lane 3 : Kidney (Mouse) Tissue Lysate
Lane 4 : Liver (Rat) Tissue Lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP)

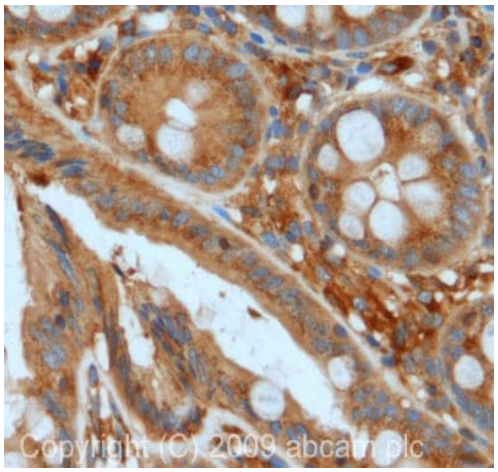
Developed using the ECL technique.

Predicted band size: 42 kDa
Observed band size: 42 kDa
Additional bands at: 70 kDa. We are unsure as to the identity of these extra bands.



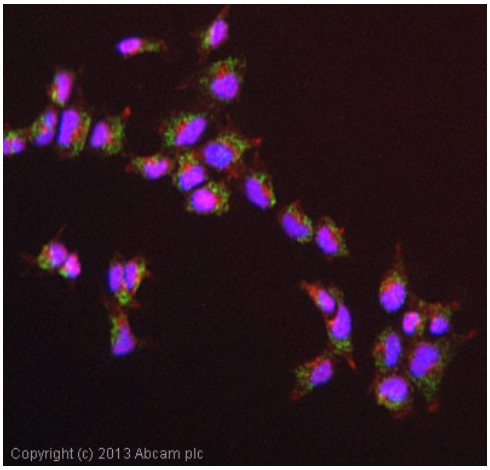
Immunoprecipitation - Anti-GNAQ antibody (ab75825)

GNAQ was immunoprecipitated using 0.5mg HepG2 whole cell extract, 5µg of Rabbit polyclonal to GNAQ and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, HepG2 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70^{o}C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab75825.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).
Band: 42kDa: GNAQ.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GNAQ antibody (ab75825)

IHC image of G protein alpha q staining in human colon formalin fixed paraffin embedded tissue section, performed on a Leica Bond^{TM} system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab75825, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunocytochemistry/ Immunofluorescence - Anti-GNAQ antibody (ab75825)

ICC/IF image of ab75825 stained Hek293 cells. The cells were 4% paraformaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab75825, 5µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96899**, DyLight® 488 goat anti-rabbit IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. This antibody also gave a positive result in 4% paraformaldehyde fixed (10 min) HepG2 cells at 5µg/ml, and in 100% methanol fixed (5 min) Hek293, HepG2 and MCF7 cells at 5µg/ml.

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