

**GNAI3 Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21247a****Specification**

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**GNAI3 Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB,E                   |
| Primary Accession | <a href="#">P08754</a> |
| Reactivity        | Human                  |
| Host              | Rabbit                 |
| Clonality         | polyclonal             |
| Isotype           | Rabbit IgG             |
| Calculated MW     | 40532                  |

**GNAI3 Antibody - Additional Information****Gene ID** 2773**Other Names**

Guanine nucleotide-binding protein G(k) subunit alpha, G(i) alpha-3, GNAI3

**Target/Specificity**

This GNAI3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 309-343 amino acids from the human region of human GNAI3.

**Dilution**

WB~~1:2000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

GNAI3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**GNAI3 Antibody - Protein Information****Name** GNAI3

**Function** Heterotrimeric guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades. The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state. Signaling by an activated GPCR promotes GDP release

and GTP binding. The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (By similarity). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (PubMed:[18434541](#), PubMed:[19478087](#), PubMed:[8774883](#)). Signaling is mediated via effector proteins, such as adenylate cyclase. Inhibits adenylate cyclase activity, leading to decreased intracellular cAMP levels (PubMed:[19478087](#)). Stimulates the activity of receptor-regulated K(+) channels (PubMed:[2535845](#)). The active GTP-bound form prevents the association of RGS14 with centrosomes and is required for the translocation of RGS14 from the cytoplasm to the plasma membrane. May play a role in cell division (PubMed:[17635935](#)). The active GTP-bound form activates the calcium permeant TRPC5 ion channels (PubMed:[37137991](#)).

#### Cellular Location

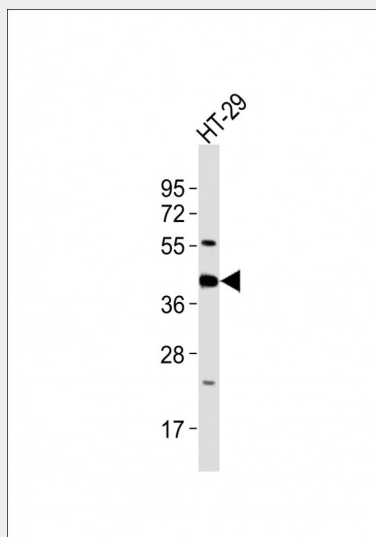
Cytoplasm. Cell membrane; Lipid-anchor. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Localizes in the centrosomes of interphase and mitotic cells Detected at the cleavage furrow and/or the midbody

#### GNAI3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### GNAI3 Antibody - Images



Anti-GNAI3 Antibody at 1:2000 dilution + HT-29 whole cell lysates. Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 41 kDa. Blocking/Dilution buffer: 5% NFDM/TBST.

#### GNAI3 Antibody - Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in

various transmembrane signaling systems. G(k) is the stimulatory G protein of receptor- regulated K(+) channels. The active GTP-bound form prevents the association of RGS14 with centrosomes and is required for the translocation of RGS14 from the cytoplasm to the plasma membrane. May play a role in cell division.

### **GNAI3 Antibody - References**

Didsbury J.R.,et al.FEBS Lett. 219:259-263(1987).  
Beals C.R.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:7886-7890(1987).  
Itoh H.,et al.J. Biol. Chem. 263:6656-6664(1988).  
Codina J.,et al.J. Biol. Chem. 263:6746-6750(1988).  
Kim S.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:4153-4157(1988).