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GNAI3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21247a

Product Information

Application	WB, E
Primary Accession	P08754
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB46791
Calculated MW	40532

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.

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

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.

References

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Itoh H.,et al.J. Biol. Chem. 263:6656-6664(1988).
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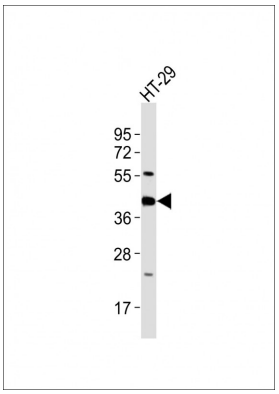
Images



Anti-GNAI3 Antibodyat 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.