10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GNAS Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21831a

Product Information

Application	WB, E
Primary Accession	P63092
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB54063
Calculated MW	45665

Additional Information

Gene ID	2778
Other Names	Guanine nucleotide-binding protein G(s) subunit alpha isoforms short, Adenylate cyclase-stimulating G alpha protein, GNAS, GNAS1, GSP
Target/Specificity	This GNAS antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 51-83 amino acids from human GNAS.
Dilution	WB~~1:8000 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	GNAS Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GNAS
Synonyms	GNAS1, GSP
Function	Guanine nucleotide-binding proteins (G proteins) function as transducers in numerous signaling pathways controlled by G protein- coupled receptors (GPCRs) (PubMed:12391161, PubMed:17110384, PubMed:21488135,

PubMed:26206488, PubMed:8702665, PubMed:10200251). The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:12391161, PubMed:17110384, PubMed:10200251). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:12391161, PubMed:17110384, PubMed:10200251). The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (PubMed:12391161, PubMed:17110384, PubMed:10200251). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (PubMed:12391161, PubMed:17110384, PubMed:10200251). Signaling involves the activation of adenylyl cyclases, resulting in increased levels of the signaling molecule cAMP (PubMed:17110384, PubMed:26206488, PubMed:26206488, PubMed:8702665). Functions downstream of beta-adrenergic receptors (PubMed:21488135). Stimulates the Ras signaling pathway via RAPGEF2 (PubMed:12391161).

Cellular Location Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to the plasma membrane via lipid-anchor.

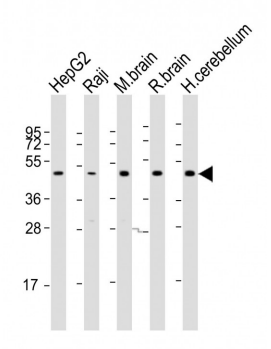
Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. The G(s) protein is involved in hormonal regulation of adenylate cyclase: it activates the cyclase in response to beta-adrenergic stimuli. Stimulates the Ras signaling pathway via RAPGEF2.

References

Mattera R.,et al.FEBS Lett. 206:36-42(1986).
Harris B.A.,et al.Nucleic Acids Res. 16:3585-3585(1988).
Kozasa T.,et al.Proc. Natl. Acad. Sci. U.S.A. 85:2081-2085(1988).
Puhl H.L. III,et al.Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.

Images



All lanes : Anti-GNAS Antibody (N-Term) at 1:8000 dilution Lane 1: HepG2 whole cell lysate Lane 2: Raji whole cell lysate Lane 3: mouse brain lysate Lane 4: rat brain lysate Lane 5: human cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 46 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.