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

GNAS Blocking Peptide (N-Term)

Synthetic peptide
Catalog # BP21831a

Specification

GNAS Blocking Peptide (N-Term) - Product Information

Primary Accession P63092

GNAS Blocking Peptide (N-Term) - 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
The synthetic peptide sequence is selected from aa 71-83 of HUMAN GNAS

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GNAS Blocking Peptide (N-Term) - 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:<a

href="http://www.uniprot.org/citations/10200251" target="_blank">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 {ECO:0000250|UniProtKB:P63094}; Lipid-anchor {ECO:0000250|UniProtKB:P63094}

GNAS Blocking Peptide (N-Term) - Protocols

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

- Blocking Peptides

GNAS Blocking Peptide (N-Term) - Images

GNAS Blocking Peptide (N-Term) - 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.

GNAS Blocking Peptide (N-Term) - 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.