

Recombinant Full Length Human GNAS Protein, GST-tagged

Cat. No. GNAS-5336HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human GNAS full-length ORF (NP_000507.1, 1 a.a. - 394 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	394 amino acids
Description	This locus has a highly complex imprinted expression pattern. It gives rise to maternally, paternally, and biallelically expressed transcripts that are derived from four alternative promoters and 5 exons. Some transcripts contains a differentially methylated region (DMR) at their 5 exons, and this DMR is commonly found in imprinted genes and correlates with transcript expression. An antisense transcript is produced from an overlapping locus on the opposite strand. One of the transcripts produced from this locus, and the antisense transcript, are paternally expressed noncoding RNAs, and may regulate imprinting in this region. In addition, one of the transcripts contains a second overlapping ORF, which encodes a structurally unrelated protein - Alex. Alternative splicing of downstream exons is also observed, which results in different forms of the stimulatory G-protein alpha subunit, a key element of the classical signal transduction pathway linking receptor-ligand interactions with the activation of adenylyl cyclase and a variety of cellular responses. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseu

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dopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseus heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors. [provided by RefSeq]

Molecular Mass 72.1 kDa

AA Sequence

MGCLGNSKTEDQRNEEKAQREANKKIEKQLQKDKQVYRATHRLLLLGAGESGKSTI
VKQMRILHVNGFNNGEGGEDPQAARSNSDGEKATKVQDIKNNLKEA IETIVAAMSNL
VPPVELANPENQFRVDYILSVMNVPDFDFPPEFYEHAKALWEDEGVRACYERSNEY
QLIDCAQYFLDKIDVIKQADYVPSDQDLLRCRVLTS GIFETKFQVDKVNFMFDVGG
QRDERRKWIQCFNDVTAIFVVASSSYNMVIREDNQTNRLQEALNLFKSIWNNRWLR
TISVILFLNKQDLLAEKVLGKSKIEDYFPEFARYTTPEDATPEPGEDPRVTRAKYFIR
DEFLRISTASGDGRHYCYPHFTCAVDTENIRRVFNDCRDIIQRMHLRQYELL

Applications

Enzyme-linked Immunoabsorbent Assay
Western Blot (Recombinant protein)
Antibody Production
Protein Array

Notes

Best use within three months from the date of receipt of this protein.

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name

GNAS GNAS complex locus [Homo sapiens]

Official Symbol

GNAS

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Synonyms	GNAS; GNAS complex locus; GNAS1, guanine nucleotide binding protein (G protein), alpha stimulating activity polypeptide 1; protein ALEX; GNASXL; GPSA; NESP; NESP55; SCG6; secretogranin VI; extra large alphas protein; neuroendocrine secretory protein; guanine nucleotide regulatory protein; alternative gene product encoded by XL-exon; adenylate cyclase-stimulating G alpha protein; guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas; guanine nucleotide binding protein (G protein), alpha stimulating activity polypeptide 1; AHO; GSA; GSP; POH; GNAS1; PHP1A; PHP1B; PHP1C; C20orf45; MGC33735;
Gene ID	2778
mRNA Refseq	NM_000516
Protein Refseq	NP_000507
MIM	139320
UniProt ID	O95467