Recombinant Human GNAS Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. GNAS-1423H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	GNAS MS Standard C13 and N15-labeled recombinant protein (NP_000507) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
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 contain 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 reponses. 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, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseus heter

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	oplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors.
Molecular Mass	45.5 kDa
AA Sequence	MGCLGNSKTEDQRNEEKAQREANKKIEKQLQKDKQVYRATHRLLLLGAGESGKSTI VKQMRILHVNGFNGEGGEEDPQAARSNSDGEKATKVQDIKNNLKEAIETIVAAMSNL VPPVELANPENQFRVDYILSVMNVPDFDFPPEFYEHAKALWEDEGVRACYERSNEY QLIDCAQYFLDKIDVIKQADYVPSDQDLLRCRVLTSGIFETKFQVDKVNFHMFDVGG QRDERRKWIQCFNDVTAIIFVVASSSYNMVIREDNQTNRLQEALNLFKSIWNNRWLR TISVILFLNKQDLLAEKVLAGKSKIEDYFPEFARYTTPEDATPEPGEDPRVTRAKYFIR DEFLRISTASGDGRHYCYPHFTCAVDTENIRRVFNDCRDIIQRMHLRQYELLTRRLE QKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 3 months from receipt of products under proper storage and handling conditions.
Storage	Store at -80 centigrade. Avoid repeated freeze-thaw cycles.
Concentration	50 μg/mL as determined by BCA
Storage Buffer	100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name	GNAS GNAS complex locus [Homo sapiens (human)]
Official Symbol	GNAS
Synonyms	GNAS; GNAS complex locus; GNAS1, guanine nucleotide binding protein (G protein),

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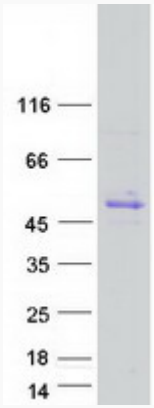
	alpha stimulating activity polypeptide 1; protein ALEX; GNASXL; GPSA; NESP; NESP55; SCG6; secretogranin VI; extra large alphas protein; neuroendocrine secretory protein; guanine nucleotide regulatory protein; alternative gene product encoded by XL-exon; adenylate cyclase-stimulating G alpha protein; 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
SDS-PAGE	

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