



Recombinant Pig Guanine nucleotide-binding protein G (s) subunit alpha (GNAS)

Product Code	CSB-EP009596PI-B
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P29797
Product Type	Recombinant Protein
Immunogen Species	Sus scrofa (Pig)
Purity	>85% (SDS-PAGE)
Sequence	MGCLGNSKTE DQRNEEKAQR EANKKIEKQL QKDKQVYRAT HRLLLLGGAGE SGKSTIVKQM RILHVNGFNG DEKATKVQDI KNNLKEAIET IVAAMSNLVP PVELANPENQ FRVDYILSVM NVPDFDFPPE FYEHAKALWE DEGVRACYER SNEYQLIDCA QYFLDKIDVI KQDDYVPSDQ DLLRCRVLTS GIFETKFQVD KVNFMFDVG GQRDERRKWI QCFNDVTAIL FVASSSYNM VIREDNQTNR LQEALNLFKS IWNNRWLRTI SVILFLNKQD LLAEKVLGK SKIELFVLDD RLFQERPFSF IEDYFPEFAR YTPEDATPE PGEDPRVTRA KYFIRDEFLLR ISTASGDGRH YCYPHFTCAV DTENIRRVFN DCRDIIQRMH LRQYELL
Source	E.coli
Target Names	GNAS
Protein Names	Recommended name: Guanine nucleotide-binding protein G(s) subunit alpha Alternative name(s): Adenylate cyclase-stimulating G alpha protein
Expression Region	1-397
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	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 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 heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.