



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

<b>Product Code</b>	CSB-EP009596DO
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P63091
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Canis lupus familiaris (Dog) (Canis familiaris)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	MGCLGNSKTE DQRNEEKAQR EANKKIEKQL QKDKQVYRAT HRLLLLGGAGE SGKSTIVKQM RILHVNGFNG EGGEEDPQAA RSNSDGEKAT KVQDIKNNLK EAIETIVAAM SNLVPPVELA NPENQFRVDY ILSVMNVPDF DFPPEFYEHA KALWEDEGVR ACYERSNEYQ LIDCAQYFLD KIDVIKQADY VPSDQDLLRC RVLTSIGIFET KFQVDKVNFB MFDVGGQRDE RRRKWIQCFND VTAIFVVAS SSYNMVIREN NQTNRLQEAL NLFKSIWNNR WLRTISVILF LNKQDLLAEK VLAGKSKIED YFPEFARYTT PEDATPEPGE DPRVTRAKYF IRDEFRLIST ASGDGRHYCY PHFTCAVDTE NIRRVFNDGR DIIQRMHLRQ YELL
<b>Source</b>	E.coli
<b>Target Names</b>	GNAS
<b>Protein Names</b>	Recommended name: Guanine nucleotide-binding protein G(s) subunit alpha Alternative name(s): Adenylate cyclase-stimulating G alpha protein
<b>Expression Region</b>	1-394
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</b>	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.

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**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.

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**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.