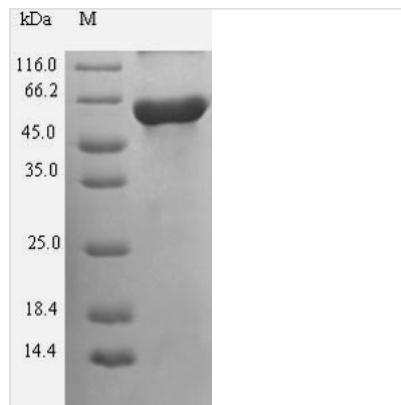




Recombinant Human Guanine nucleotide-binding protein G (s) subunit alpha isoforms short (GNAS)

Product Code	CSB-EP352389HU
Relevance	Guanine nucleotide-binding proteins (G proteins) function as transducers in numerous signaling pathways controlled by G protein-coupled receptors (GPCRs) . Signaling involves the activation of adenylyl cyclases, resulting in increased levels of the signaling molecule cAMP . GNAS functions downstream of several GPCRs, including beta-adrenergic receptors . Stimulates the Ras signaling pathway via RAPGEF2 .
Abbreviation	Recombinant Human GNAS protein
Storage	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.
Uniprot No.	P63092
Alias	Adenylate cyclase-stimulating G alpha protein
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MGCLGNSKTEDQRNEEKAQREANKKIEKQLQKDKQVYRATHRLLLLGAGESG KSTIVKQMRILHVNGFNNGEGGEEDPQAARSNSDGEKATKVQDIKNNLKEAIETI VAAMSNLVPPVELANPENQFRVDYILSVMNVPDFDFPPEFYEHAKALWEDEG VRACYERSNEYQLIDCAQYFLDKIDVIKQADYVPSDQDLLRCRVLTSGIFETKF QVDKVNFMFDVGGQRDERRKWIQCNDVTAIIFVVASSSYNMVIREDNQTN RLQEALNLFKSIWNNRWLRTISVILFLNKQDLLAEKVLGKSKIEDYFPEFARYT TPEDATPEPGEDPRVTRAKYFIRDEFRLISTASGDGRHYCYPHFTCAVDTENIR RVFNDCRDIIQRMHLRQYELL
Research Area	Signal Transduction
Source	E.coli
Target Names	GNAS
Expression Region	1-394aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	61.7kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human GNAS protein is made through genetic engineering, also called gene splicing or recombinant DNA technology. By putting Human GNAS genes into the genetic material of the E.coli system. These microorganisms can be used as factories or producers to make proteins for medical, academic and research uses. DNA to be manipulated it must be placed within a “transport vehicle” in which proteins may be produced from the genetic code of the DNA. The host cells used for Human GNAS protein synthesis are E.coli cells, the whole production processes include isolation of GNAS gene, amplification of GNAS gene, cloning, GNAS gene selection, and expression, and the GNAS protein purification, the vector contains N-terminal 6xHis-SUMO tag in addition to the specific DNA sequence, this facilitates the purification of the recombinant protein and it's finally detected with a purity of 90%+ by SDS-PAGE.

GNAS is the encoding gene for the α -subunit of the stimulatory G protein (G_{α}), a widely expressed signaling protein that is required for the actions of many hormones and other endogenous molecules by generating cAMP. Mutations in GNAS have been highly linked to McCune-Albright syndrome, characterized by developmental delay, short stature, and skeletal aberrations. GNAS mutation also regulates mucin expression.

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.