

Product datasheet for **RN200465**

Gnas (NM_019132) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gnas (NM_019132) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Gnas
Synonyms:	ALEX; G-alpha-8; Gnas1; Gnpas; Nesp55; SCG6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN200465 representing NM_019132 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCTGCCTCGGCAACAGTAAGACCGAGGACCAGCGCAACGAGGAGAAGGCGCAGCGGAGGCCAACAA
AAAAGATCGAGAAGCAGCTGCAGAAGGACAAGCAGGTCTACCGGGCCACGCACCGCTGTGCTGCTGGG
TGCTGGAGAGTCTGGCAAAGCACCATTGTGAAGCAGATGAGGATCCTACATGTTAATGGGTTTAACGGA
GAGGGCGGCGAAGAGGACCCGAGGCTGCAAGGAGCAACAGCGATGGTGAGAAGGCCACCAAAGTGCAGG
ACATCAAAAACAACCTGAAGGAGGCCATTGAAACCATTGTGGCCGCATGAGCAACCTGGTCCCCCGT
GGAGCTGGCCAACCTGAGAACCAGTTCAGAGTGGACTACATTCTGAGCGTGATGAACGTGCCAAACTTT
GACTTCCACCTGAATTCTATGAGCATGCCAAGGCTCTGTGGGAGGATGAGGGAGTTCGTGCCTGTACG
AGCGCTCCAACGAGTACCAGCTGATCGACTGTGCCAGTACTTCTGGACAAGATTGATGTGATCAAGCA
GGCCGACTACGTGCCAAGTGACCAGGACCTGCTTCGCTGCCGCGTCTGACCTCTGGAATCTTTGAGACC
AAGTCCAGGTGGACAAAGTCAACTCCACATGTTTCGATGTGGGCGGCCAGCGGATGAACGCCGAAGT
GGATCCAGTGCTCAATGATGTGACTGCCATCATCTTCGTTGGCCAGCAGCAGCTACAACATGGTCAT
CCGGGAGGACAACCAGACCAACCGTCTGCAGGAGGCTCTGAACCTCTTCAAGAGCATCTGGAACAACAGA
TGGTGGCTACCATCTCTGTGATCCTCTCCTCAACAAGCAAGATCTGCTTGTGAGAAGTCCCTCGTG
GGAAATCGAAGATTGAGGACTACTTTCCAGAGTTCGCTCGCTACACCCTCTGAGGATGCGACTCCCGA
GCCCGGAGAGGACCCACGCGTGACCCGGGCAAGTACTTCATCCGGGATGAGTTTCTGAGAATCAGCACT
GCTAGTGGAGATGGACGTCCTACTGCTACCCTCACTTTACCTGCGCCGTGGACACTGAGAACATCCGCC
GTGTTCAACGACTGCCGTGACATCATCCAGCGCATGCATCTTCGCCAATACGAGCTGCT**TAA**

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGATAAGGTTTAA



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Chromatograms: https://cdn.origene.com/chromatograms/ja2647_e05.zip

Restriction Sites: Sgfl-RsrII

ACCN: NM_019132

Insert Size: 1185 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_019132.1](#), [NP_062005.1](#)

RefSeq Size: 1738 bp

RefSeq ORF: 1185 bp

Locus ID: 24896

UniProt ID: [P63095](#)

Cytogenetics: 3q43

Gene Summary:

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. 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 have been found for this gene. [provided by RefSeq, Apr 2009]

Transcript Variant: This variant (3) is biallelically expressed and encodes isoform GNASL, also known as gnas1, a form of the G-protein alpha subunit. Sequence Note: This RefSeq record was created from transcript data from different strains because no single transcript from the same strain was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.