

## Product datasheet for MC208567

## **Gnas (NM\_201616) Mouse Untagged Clone**

**Product data:** 

**Product Type: Expression Plasmids** 

**Product Name:** Gnas (NM 201616) Mouse Untagged Clone

Tag: Tag Free Symbol: Gnas

5530400H20Rik; A930027G11Rik; C130027O20Rik; G; Ga; Galphas; Gn; Gnas1; Gnasxl; GPSA; Synonyms:

Gs-; Gs-alpha; Gsa; GSP; N; Nes; Nesp; Nesp55; Nespl; Oed; Oed-Sml; Oedsml; P; P1; P2; P3;

PHP1A; PHP1B; POH; SCG; SCG6; XL

**Mammalian Cell** 

Selection:

Neomycin

Vector: pCMV6-Entry (PS100001)

E. coli Selection: Kanamycin (25 ug/mL)

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Fully Sequenced ORF: >MC208567 representing NM\_201616

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGGCTGCCTCGGCAACAGTAAGACCGAGGACCAGCGCAACGAGGAGAAGGCGCAGCGCGAGGCCAACA AAAAGATCGAGAAGCAGCTGCAGAAGGACAAGCAGGTCTACCGGGCCACGCACCGCCTGCTGCTGCTGGG TGCTGGAGAGTCTGGCAAAAGCACCATTGTGAAGCAGATGAGGATCCTGCATGTTAATGGGTTTAACGGA GAGGGCGGCGAAGAGGACCCGCAGGCTGCAAGGAGCAACAGCGATGGTGAGAAGGCCACTAAAGTGCAGG ACATCAAAAACAACCTGAAGGAGGCCATTGAAACCATTGTGGCCGCCATGAGCAACCTGGTGCCCCCTGT GGAGCTGGCCAACCCTGAGAACCAGTTCAGAGTGGACTACATTCTGAGCGTGATGAACGTGCCGAACTTT AGCGCTCCAATGAGTACCAGCTGATTGACTGTGCCCAGTACTTCCTGGACAAGATTGATGTGATCAAGCA GGCCGACTACGTGCCAAGTGACCAGGACCTGCTTCGCTGCCGTGTCCTGACCTCTGGAATCTTTGAGACC AAGTTCCAGGTGGACAAAGTCAACTTCCACATGTTCGATGTGGGCGGCCAGCGCGATGAGCGCCGCAAGT GGATCCAGTGCTTCAATGATGTGACTGCCATCATCTTCGTGGTGGCCAGCAGCAGCTACAACATGGTCAT TCGGGAGGACAACCAGACTAACCGCCTGCAGGAGGCTCTGAACCTCTTCAAGAGCATCTGGAACAACAGA GCCGGGAGAGGACCCACGCGTGACCCGGGCCAAGTACTTCATTCGGGATGAGTTTCTGAGAATCAGCACT GCTAGTGGAGATGGGCGCCACTACTGCTACCCTCACTTTACCTGCGCCGTGGACACTGAGAACATCCGCC 

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGA TAAGGTTTAA

Chromatograms: <a href="https://cdn.origene.com/chromatograms/ja1203">https://cdn.origene.com/chromatograms/ja1203</a> c08.zip

Restriction Sites: Sgfl-RsrII

ACCN: NM\_201616

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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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: <u>NM 201616.1</u>, <u>NP 963910.1</u>

 RefSeq Size:
 1762 bp

 RefSeq ORF:
 1185 bp

 Locus ID:
 14683

 UniProt ID:
 P63094

 Cytogenetics:
 2 97.89 cM

**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, which is commonly found in imprinted genes and correlates with transcript expression. This gene has an antisense transcript. One of the transcripts produced from this locus, and the antisense transcript, are both 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. Additional transcript variants have been found for this gene, but the full-length nature and/or biological validity of some variants have not been determined. [provided by RefSeq, Jun 2015]

Transcript Variant: This variant (7) is biallelically expressed and encodes guanine nucleotide binding protein alpha-s long (GNASL) isoform, also known as alpha-S2, a form of the G-protein alpha subunit. Variants 7 and 10 encode the same isoform (GNASL).