

## Product datasheet for **MC208566**

### Gnas (NM\_001077510) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gnas (NM_001077510) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gnas
Synonyms:	5530400H20Rik; A930027G11Rik; C130027O20Rik; G; Ga; Galphas; Gn; Gnas1; Gnasxl; GP5A; Gs-; Gs-alpha; Gsa; GSP; N; Nes; Nesp; Nesp55; Nesp1; 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:** >MC208566 representing NM\_001077510  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGGCTGCCTCGGCAACAGTAAGACCGAGGACCAGCGCAACGAGGAGAAGGCGCAGCGGAGGCCAACA  
 AAAAGATCGAGAAGCAGCTGCAGAAGGACAAGCAGGTCTACCGGCCACGACCCGCTGCTGCTGCTGG  
 TGCTGGAGAGTCTGGCAAAAGCACCATTTGTGAAGCAGATGAGGATCCTGCATGTTAATGGTTTTAACGGA  
 GATAGTGAGAAGGCCACTAAAGTGCAGGACATCAAAAACAACCTGAAGGAGGCCATTGAAACCATTGTGG  
 CCGCCATGAGCAACCTGGTGCCCTGTGGAGCTGGCCAAACCTGAGAACCAGTTCAGAGTGACTACAT  
 TCTGAGCGTGATGAACGTGCCGAACCTTTGACTTCCCACCTGAATTCATGAGCATGCCAAGGCTCTGTGG  
 GAGGATGAGGGAGTGCCTGCTACGAGCGCTCCAATGAGTACCAGCTGATTGACTGTGCCAGTACT  
 TCCTGGACAAGATTGATGTGATCAAGCAGGCCGACTACGTCCAAGTGACCAGGACCTGCTTCGCTGCCG  
 TGTCCTGACCTCTGGAATCTTTGAGACCAAGTTCAGGTGGACAAAGTCAACTCCACATGTTTCGATGTG  
 GGCGGCCAGCGGATGAGCGCCCAAGTGGATCCAGTGTCAATGATGTGACTGCCATCATCTTCGTTGG  
 TGGCCAGCAGCAGCTACAACATGGTCATTCGGGAGGACAACCAGACTAACCGCTGCAGGAGGCTCTGAA  
 CCTCTTCAAGAGCATCTGGAACAACAGATGGCTGCGCACCATCTCTGTGATTCTCTTCTCAACAAGCAA  
 GACCTGCTTGCTGAGAAAGTCTCGCTGGCAAATCGAAGATTGAGGACTACTTTCCAGAGTTCGCTCGCT  
 ACACCACTCCTGAGGATGCGACTCCCGAGCCGGGAGAGGCCACCGCGTGACCCGGGCCAAGTACTTCAT  
 TCGGGATGAGTTTCTGAGAATCAGCACTGCTAGTGGAGATGGCGCCACTACTGCTACCTCACTTTACC  
 TGCGCCGTGGACTGAGAACATCCGCCGTGTCTCAACGACTGCCGTGACATCATCCAGCGCATGCATC  
 TCCGCCAATACGAGCTGCT**TAA**

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTAA

**Restriction Sites:** SgfI-RsrII

**ACCN:** NM\_001077510

**Insert Size:** 1143 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_001077510.4](#), [NP\\_001070978.1](#)

**RefSeq Size:** 1720 bp

RefSeq ORF: 1143 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 responses. 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 (8) is biallelically expressed. It lacks an internal exon and uses an alternate splice site, compared to variant 7. It encodes the isoform GNASS, also known as alpha-S1, which lacks an internal segment and has two amino acids different, compared to isoform GNASL.