

Product datasheet for **MC226594**

Gnas (NM_019690) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gnas (NM_019690) 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; NespI; Oed; Oed-Sml; Oedsml; P; P1; P2; P3; PHP1A; PHP1B; POH; SCG; SCG6; XL
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC226594 representing NM_019690 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGATCGCAGGTCCCGGCTCAGCAGTGGCGCCGAGCTCGCCATAATTACAACGACCTGTGCCCGCCA
TAGGCCGCGGGCTGCCACCGCTCCTCTGGCTCCTGCTCCATTGCTCCTCCGCGCCCTAGCCTC
TTCCAACGCCCGCCAGCAGCGTGCTGCCAGCGCCGAGCTTCTTAACGCCACCACCGCTCCGCT
GCCGCTGCAGCTGCCGCACAGGTACTCCCTGAGTCCTCTGAATCTGAGTCTGATCACGAGCACGAGGAGG
TTGAGCCTGAGCTGGCCCGCCGAGTGCCTAGAGTACGATCAGGACGACTACGAGACCGAGACCGATT
TGAGACCGAGCCTGAGTCCGATATCGAATCCGAGACCGAAATCGAGACCGAGCCAGAGACCGAGCCAGAA
ACCGAGCCAGAGACCGAGCCAGAGGACGAGCGCGCCCGGGGTGCCACCTTCAACCAGTCACTCACTC
AGCGTCTGCACGCTCTGAAGTTGCAGAGCGCCGACGCTCCCGAGACGTGCGCAGCCACCCTCAGGA
GCCTGAGAGCGCAAGCGAGGGGGAGGAGCCCGAGCGGGCCCTTAGATCAGGATCCTCGGGACCCCGAG
GAGGAGCCAGAGGAGCGCAAGGAGGAAAACAGGACGCCCCGCGCTGCAAGACCGAGGAGCCAGCCCGCC
GTCGCGACCAGTCCCGGAGTCCCTCCAGAAAGGGGCCATCCCCATCCGGCGTCACTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	Sgfl-MluI
ACCN:	NM_019690
Insert Size:	762 bp



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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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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_019690.3</u> , <u>NP_062664.2</u>
RefSeq Size:	1651 bp
RefSeq ORF:	762 bp
Locus ID:	14683
UniProt ID:	<u>Q9Z0F1</u>
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 (4) is maternally expressed. It lacks several 3' exons and has alternate 5' and 3' exons, compared to variant 7. Variants 3 and 4 both encode isoform secretogranin VI (SCG6, also known as NESP55), which localizes to large secretory vesicles of endocrine cells and neurons. The coding regions of variants 3 and 4 do not overlap the coding regions used by other transcripts; thus SCG6 has no similarity to isoforms of the G-protein alpha subunit. This variant has an antisense transcript NESPAS.