

Product datasheet for **RR216170**

Gnas (NM_001159653) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Gnas (NM_001159653) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Gnas
Synonyms: ALEX; G-alpha-8; Gnas1; Gnpas; Nesp55; SCG6
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR216170 representing NM_001159653
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGATCGCAGGTCCCGGGCTCATCAGTGGCGCCGAGCTCGCCATAATTACAACGACCTGTGCCCGCCA
TAGGCCGCGGGCTGCTACCGCTCTCCTCTGGCTCTCCTGCTCCATCGCTCTCCTCCGCGCCCTAGCCTC
TTCCAACGCCCGCGCCAGCAGCGGGCTGCCAGCGCCGAGCTTCCTTAACGCCACCACCGCTCCGCT
GCCGCTGCAGCTGCCGCACAGGTACTCCCGAGTCTCTGAATCCGAATCTGATCACGAGCACGAGGAGG
CTGAGCCTGAGCTGGCCCGCCCGAGTGCCTAGAGTACGATCAGGACGACTACGAGACCGAGACCGATT
TGAGACCGAGCCTGAGTCCGATATCCAGTCCGAGACCGAATTCGAGACCGAGCCTGAGACCGAGCCTGAG
ACCGCCCTACAACCTGAGCCTGAGACCGAACAGAGGACGAGCGCGGCCCGGGGCGCCACCTTCAACC
AGTCACTCACTCAGCGTCTGCACGCTCTGAAGTTGCAGAGCGCCGACGCTCCCGAGACGTGCCAGCC
CACCCTCAGGAGCCTGAGAGCGCAAGCGAGGGGAGGAGCCCGAGCGAGCCCTTAGACGAGGATCCT
CGGGACCCGAGGAGTCAGAGGAGCTCAGGGAGGCGAACAGGCAGCCCGCCGCTGCAAGACCAGGAGGC
CAGCCCGCGTCGCGACCAGTCCCGGAGTCCCTCCAGAAAGGGGCCATCCCATCCGGCGTCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RR216170 representing NM_001159653
Red=Cloning site Green=Tags(s)

MDRRSRAHQWRRARHNYNDLCPPIGRRAATALLWLSCSIALLRALASSNARAQQRAAQRRSFLNAHHRSA
 AAAAAAQLVPESSESDHEHEEAPELARPECLEYDQDDYETETDSETEPESDIQSETEFETEPETEPE
 TAPTTEPETEPEDERGPRGATFNQSLTQRLHALKQLQSADASPRRAQPTTQEPESASEGEEPQREPLDEDP
 RDPEESEELREANRQPRRCKTRRPARRRDQSPESP RRKGP IPIRRH

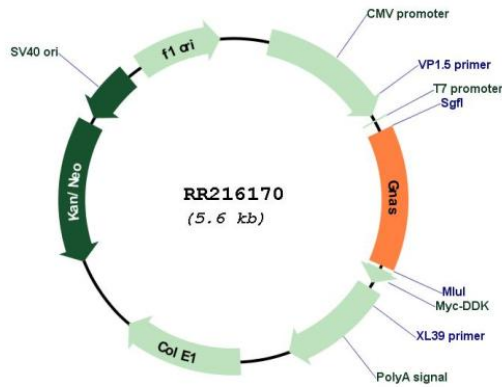
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001159653
ORF Size: 768 bp

OTI Disclaimer:	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
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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:	NM_001159653.1 , NP_001153125.1
RefSeq Size:	2543 bp
RefSeq ORF:	771 bp
Locus ID:	24896
UniProt ID:	Q792G6
Cytogenetics:	3q43
MW:	29.2 kDa
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]