

Product datasheet for **SC205188**

G protein alpha S (GNAS) (NM_000516) Human 3' UTR Clone

Product data:

Product Type: 3' UTR Clones
Product Name: G protein alpha S (GNAS) (NM_000516) Human 3' UTR Clone
Vector: pMirTarget (PS100062)
Symbol: GNAS
Synonyms: AHO; C20orf45; GNAS1; GPSA; GSA; GSP; NESP; PITA3; POH; SCG6; SgVI
ACCN: NM_000516
Insert Size: 393 bp
Insert Sequence: >SC205188 3'UTR clone of NM_000516
The sequence shown below is from the reference sequence of NM_000516. The complete sequence of this clone may contain minor differences, such as SNPs.
Blue=Stop Codon **Red**=Cloning site

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GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
ATGCACCTTCGTACGAGCTGCTCTAAGAAGGGAACCCCAAATTTAATTAAGCCTTAAGCACAA
TTAATTAAGTGAACGTAATTGTACAAGCAGTTAATCACCCACCATAGGGCATGATTAACAAAGCAA
CCTTTCCCTTCCCGAGTGATTTTGCAGAACCCCTTTCCCTTCAGCTTGCTTAGATGTTCCAAATT
TAGAAAGCTTAAGGCGGCTACAGAAAAAGGAAAAAGGCCACAAAAGTCCCTCTCACTTTCAGTAAA
AATAAATAAACAGCAGCAGCAACAAATAAATGAAATAAAAGAAACAAATGAAATAAATATTGTGTT
GTGCAGCATTAAAAAATCAAAATAAAATTAATGTGAGCAAAGAA
ACGCGTAAGCGGCCGCGCATCTAGATTGAAGAAAATGACCGACCAAGCGACGCCAACCTGCCATCA
CGAGATTCGATTCCACCGCCCTTCTATGAAAGG
```

Restriction Sites: SgfI-MluI

OTI Disclaimer: Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences, e.g., single nucleotide polymorphisms (SNPs).

Components: The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

RefSeq: [NM_000516.7](#)



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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. An antisense transcript is produced from an overlapping locus on the opposite strand. One of the transcripts produced from this locus, and the antisense transcript, are 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. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene result in pseudohypoparathyroidism type 1a, pseudohypoparathyroidism type 1b, Albright hereditary osteodystrophy, pseudopseudohypoparathyroidism, McCune-Albright syndrome, progressive osseous heteroplasia, polyostotic fibrous dysplasia of bone, and some pituitary tumors. [provided by RefSeq, Aug 2012]

Locus ID:

2778

MW:

15.4