

Product datasheet for SC300087

GDNF (NM_000514) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: GDNF (NM_000514) Human Untagged Clone

Tag: Tag Free Symbol: GDNF

Synonyms: ATF; ATF1; ATF2; HFB1-GDNF; HSCR3

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_000514 edited

 ${\tt AGAAAGCATTCCGCTAAAAGGTGTGGATGTATCTGA}$

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5' Read Nucleotide Sequence: >OriGene 5' read for NM_000514 unedited

Restriction Sites: Please inquire **ACCN:** NM_000514

Insert Size: 600 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 customercom 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

OTI Annotation: The open reading frame of this TrueClone was fully sequenced and found to be a perfect

match to the protein associated to this reference.

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.



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Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with

0.22um filter is required.

RefSeq: <u>NM 000514.2, NP 000505.1</u>

RefSeq Size: 836 bp
RefSeq ORF: 636 bp
Locus ID: 2668
UniProt ID: P39905
Cytogenetics: 5p13.2

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Gene Summary: This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta)

superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene

expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. The recombinant form of this protein, a highly conserved neurotrophic factor, was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy.

This protein is a ligand for the product of the RET (rearranged during transfection)

protooncogene. Mutations in this gene may be associated with Hirschsprung disease and Tourette syndrome. This gene encodes multiple protein isoforms that may undergo similar

proteolytic processing. [provided by RefSeq, Aug 2016]

Transcript Variant: This variant (1) differs in the 5' UTR, represents use of an alternate promoter, and uses a downstream start codon, compared to variant 3. The resulting isoform (1) has a shorter N-terminus, compared to isoform 3. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record

were based on transcript alignments.