

## Product datasheet for MC226320

### Gdnf (NM\_001301357) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gdnf (NM_001301357) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gdnf
Synonyms:	AI385739; ATF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC226320 representing NM_001301357 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGAAGTTATGGGATGTCGTGGCTGTCTGCCTGGTGTGCTCCACACCGCTCTGCCTTCCCGCTGCCCC  
 CCGGTAAGAGGCTTCTCGAAGCGCCGCTGAAGACCACTCCCTCGGCCACCGCCGCTGCCCTTCGCGCT  
 GACCACTGACTCCAATATGCCTGAAGATTATCCTGACCACTTTGATGACGTCATGGATTTTATTCAAGCC  
 ACCATTAAGAGCTGAAAAGGTCACCAAGATAAACAAGCGGCAGCGCTTCCTCGAAGAGAGAGGAATCGGC  
 AGGCTGCAGCTGCCAGCCAGAGAATTCAGAGGAAAGGTCGCAGAGGCCAGAGGGGCAAAATCGGGG  
 GTGCGTTTTAACTGCCATACACTTAAATGTCACTGACTTGGGTTTGGGCTATGAAACCAAGGAGGAAGT  
 ATCTTTTCGATATTGCAGCGGTTCTGTGAATCGGCCGAGACAATGTATGACAAAATACTAAAAACCTGT  
 CTCGGAGTAGAAGGCTAACAAGTGACAAAGTAGGCCAGGCATGTTGCAGGCCGCTCGCCTTCGACGACGA  
 CCTGTCGTTTTTAGATGACAACCTGGTTTACCATTCTAAGAAAGCATTCCGCTAAACGGTGTGGATGT  
 ATCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_001301357
Insert Size:	636 bp


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<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_001301357.1</a></u> , <u><a href="#">NP_001288286.1</a></u>
<b>RefSeq Size:</b>	3449 bp
<b>RefSeq ORF:</b>	636 bp
<b>Locus ID:</b>	14573
<b>UniProt ID:</b>	<u><a href="#">P48540</a></u>
<b>Cytogenetics:</b>	15 A1

**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. Homozygous knockout mice for this gene exhibit defects in kidney development and neonatal death. This gene encodes multiple protein isoforms that may undergo similar proteolytic processing. [provided by RefSeq, Aug 2016]

Transcript Variant: This variant (4) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The resulting isoform (4) has a shorter N-terminus, compared to isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.