

## **Product datasheet for MR227554**

## Gdnf (NM\_010275) Mouse Tagged ORF Clone

## **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** Gdnf (NM\_010275) Mouse Tagged ORF Clone

Tag: Myc-DDK

Symbol: Gdnf

Synonyms: Al385739; ATF

Mammalian Cell Neomycin

Selection:

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>MR227554 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

 ${\tt TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC}$ 

GCCGCGATCGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR227554 protein sequence

Red=Cloning site Green=Tags(s)

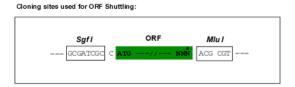
MGFGPLGVNVQLGVYGDRIRGAAAGRDSKMKLWDVVAVCLVLLHTASAFPLPAGKRLLEAPAEDHSLGHR RVPFALTSDSNMPEDYPDQFDDVMDFIQATIKRLKRSPDKQAAALPRRERNRQAAAASPENSRGKGRRGQ RGKNRGCVLTAIHLNVTDLGLGYETKEELIFRYCSGSCESAETMYDKILKNLSRSRRLTSDKVGQACCRP VAFDDDLSFLDDNLVYHILRKHSAKRCGCI

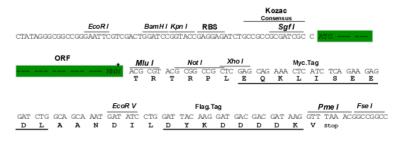
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_010275

ORF Size: 723 bp

**OTI Annotation:** 

**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 <a href="mailto:customercom">customercom</a> 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

variants is recommended prior to use. <u>More into</u>

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:** 

- 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 010275.3</u>

 RefSeq Size:
 4477 bp

 RefSeq ORF:
 723 bp

 Locus ID:
 14573

 UniProt ID:
 P48540

 Cytogenetics:
 15 A1

 MW:
 26.6 kDa

**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

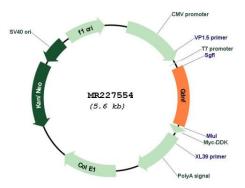
expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. The recombinant form of this protein, a highly conserved neurotrophic factor, was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was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



## **Product images:**



Circular map for MR227554