

Product datasheet for RC221425

GDNF (NM_199231) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: GDNF (NM_199231) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: GDNF
Synonyms: ATF; ATF1; ATF2; HFB1-GDNF; HSCR3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC221425 representing NM_199231
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGTTATGGGATGTCGTGGCTGTCTGCCTGGTGTGCTCCACACCGGTCGGCCTTCCCGTGCCCG
CCGCAATATGCCAGAGGATTATCCTGATCAGTTCGATGATGTCATGGATTTTATCAAGCCACCATTAA
AAGACTGAAAAGGTCACCAGATAAACAATGGCAGTGTCTCTAGAAGAGAGCGGAATCGGCAGGCTGCA
GCTGCCAACCCAGAGAATCCAGAGGAAAAGTTCGGAGAGGCCAGAGGGGCAAAAACCGGGTTGTGTCT
TAACTGCAATACATTTAAATGTCACTGACTTGGGTCTGGGCTATGAAACCAAGGAGGAAGTATTTTAG
GTACTGCAGCGGCTCTTGCATGACGCTGAGACAACGTACGACAAAATATTGAAAACTTATCCAGAAAT
AGAAGGCTGGTGAAGTACAAAAGTAGGGCAGGCATGTTGCAGACCCATCGCCTTTGATGATGACCTGTCTG
TTTTAGATGATAACCTGGTTTACCATATTCTAAGAAAGCATTCCGCTAAAAGGTGTGGATGTATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221425 representing NM_199231
Red=Cloning site Green=Tags(s)
MKLWDVVAVCLVLLHTASAFPLPAANMPEDYPDQFDDVMDFIQATIKRLKRPDKQMAVLP RRERNRQAA
AANPENS RGKRRGQRGKNRGCVLTAIHLNVTDLGLGYETKEELIFRYCSGSCDAAETTYDKILKNSRN
RRLVSDKVGQACCRPIAFDDDL SFLDDNLVYHILRKHSKRKCGCI

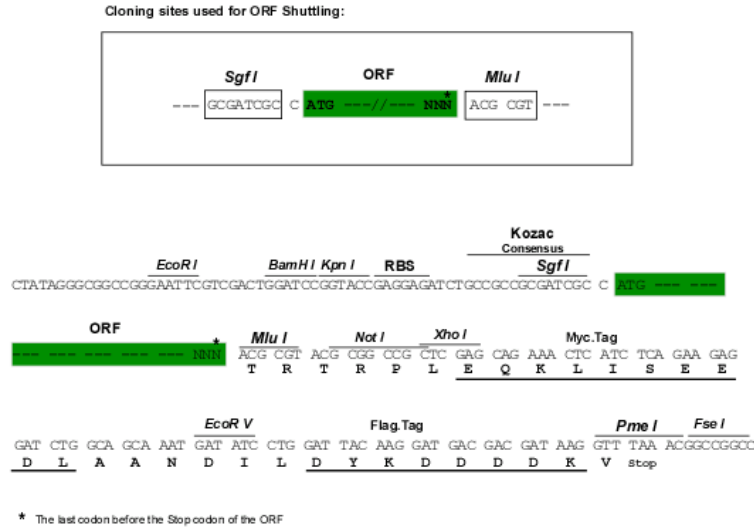
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6111_h05.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_199231

ORF Size: 555 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:

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_199231.2](#)

RefSeq Size: 681 bp

RefSeq ORF: 558 bp

Locus ID: 2668

UniProt ID: [P39905](#)

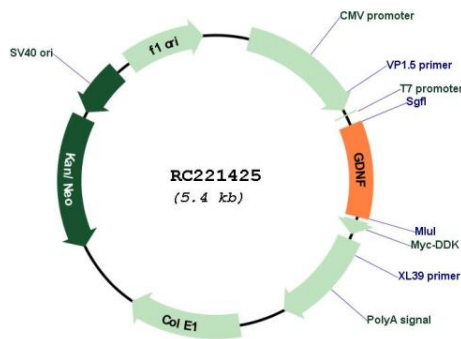
Cytogenetics: 5p13.2

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

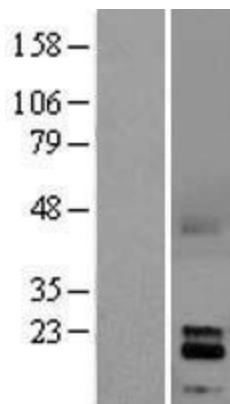
MW: 18.8 kDa

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. 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]

Product images:



Circular map for RC221425



Western blot validation of overexpression lysate (Cat# [LY403701]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221425 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).