

Product datasheet for **RC224791**

GDF10 (NM_004962) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GDF10 (NM_004962) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GDF10
Synonyms:	BIP; BMP-3b; BMP3B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224791 representing NM_004962
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTCATGTCCCCGCTCGGACCAGCCGGGACCCGGGCCCCAGCTGCTGCTGCTGCTGCTGCCGTTGT
 TTCTGCTGTTGCTCCGGATGTGGCCGGCAGCCACAGGGCCCCCGCTGCTCCGACTGCCCGCGGCCGC
 CGACGGCCTGCAGGGGGACAGGGATCTCCAGCGCACCCCTGGGGACGCGGCCGCCACGTTGGGCCCCAGC
 GCCCAGGACATGGTCGCTGTCCACATGCACAGGCTCTATGAGAAGTACAGCCGGCAGGGCGCGGCCGG
 GAGGGGGCAACACGGTCCGACGTTTCCAGGGCCAGGCTGGAAGTGGTCGACCAGAAGGCCGTGATTTCTT
 CAACCTGACTTCCATGCAAGACTCGAAATGATCCTTACGGCCACTTTCCACTTCTACTCAGAGCCGCT
 CGGTGGCCTCGAGCGCTCGAGGTGCTATGCAAGCCGCGGGCCAAGAACGTTTCCAGCCGCCCGCTGCCCC
 TGGGCCCGCCACACGCCAGCACCTGCTTCCGACGCTCTCGCAGAACACGGCCACACAGGGGCTACT
 CCGCGGGGCCATGGCCCTGGCGCCCCACCGCGCGGCCCTGTGGCAGGCCAAGGACATCTCCCCATCGTC
 AAGGGCGCCCGCGGGATGGCGAGCTGCTCTCCGCCAGCTGGATTCTGAGGAGAGGGACCCCGGGGG
 TGCCCCGCGCCAGCCCTATGCGCCCTACATCCTAGTCTATGCCAACGATCTGGCCATCTCGGAGCCCAA
 CAGCGTGGCAGTGACGCTGCAGAGATACGACCCCTTCCCTGCCGGAGACCCCGAGCCCGCGCAGCCCC
 AACAACTCAGCGGACCCCGCGTGCAGCGAGCCGCGCAGGCCACTGGGCCCTCCAGGACAACGAGCTGC
 CGGGGCTGGATGAGAGGCCCGCGCGGCCACGCACAGCACTTCCACAAGCACCAGCTGTGGCCAGCCC
 CTTCCGGGCGTGAAACCCCGCCAGGGCGCAAAGACCGCAGGAAGAAGGGCCAGGAGGTGTTTATGGCC
 GCCTCGCAGGTGCTGGACTTTGACGAGAAGACGATGCAGAAAGCCCGGAGGAAGCAGTGGGATGAGCCGA
 GGGTGTGCTCCCGGAGGTACCTGAAGGTGGACTTCGCAGACATCGGCTGGAATGAATGAATATCTACCC
 GAAATCTTTTGTGCTACTACTGCGCGGGAGCATGTGAGTTCCCATGCCTAAGATCGTTCGTCCATCC
 AACCATGCCACCATCCAGAGCATTGTGAGGCTGTGGGCATCATCCCTGGCATCCAGAGCCCTGCTGTG
 TTCCCGATAAGATGAACTCCCTTGGGTCCTTCTGATGAGAATCGGAATGTGGTTCTGAAGGTGTA
 CCCAACATGTCCGTGGACACCTGTGCCTGCCG

ACCGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224791 representing NM_004962
 Red=Cloning site Green=Tags(s)

MAHVPARTSPGPGPQLLLLLLPLFLLLLRDVAGSHRAPAWSALPAAADGLQGDRDLQRHPGDAAATLGPS
 AQDMVAVHMHRLYEKYSRQGARPGGNTVRSFRARLEVDQKAVYFFNL TSMQDSEMILTATFFHYSEPP
 RWPRALEVLCKPRAKNASGRPLPLGPPTRQHLLFRSLSQNTATQGLLRGAMALAPPPRLWQAKDISPIV
 KAARRDGEILLSAQLDSEERDPGVRPSPYAPYILVYANDLAISEPNSVAVTLQRYDPPFAGDPEPRAAP
 NNSADPRVRAAQATGPLQDNELPGLDERPPRAHAQHFKHQLWSPFRALKPRPGRKDRRKKGQEVFMA
 ASQVLDLDFDEKTMQKARRKQWDEPRVCSRRYLKVDVFADIGWNEWII SPKSFDAYYCAGACEFPMPKIVRPS
 NHATIQSIVRAVGIIPGIPEPCCVPDKMNSLGVFLDENRNVVLKVPNMSVDTACR

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8008_c03.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_004962

ORF Size: 1434 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004962.5](#)

RefSeq Size: 2674 bp

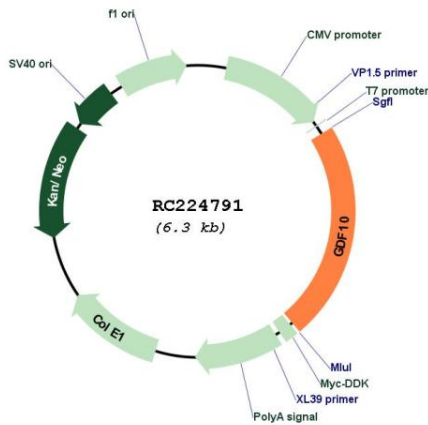
RefSeq ORF: 1437 bp

Locus ID: 2662

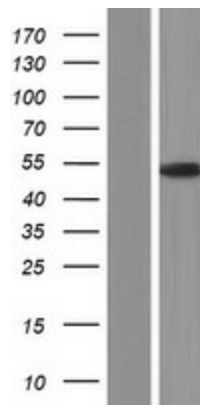
UniProt ID: [P55107](#)
Cytogenetics: 10q11.22
Protein Families: Druggable Genome, Secreted Protein
MW: 52.9 kDa

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. This promotes neural repair after stroke. Additionally, this protein may act as a tumor suppressor and reduced expression of this gene is associated with oral cancer. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC224791



Western blot validation of overexpression lysate (Cat# [LY417622]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224791 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).