

Product datasheet for **RC214424**

GDF1 (NM_001492) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GDF1 (NM_001492) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GDF1
Synonyms:	CERS1; CHTD6; DORV; DTGA3; LAG1; LASS1; RAI; UOG1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214424 representing NM_001492 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGCCACCGCCGAGCAAGGTCCCTGCGGCCACCACCTCCTCCTCCTGGCCCTGCTGCTGCCCTCGC
TGCCCTGACCCGCGCCCCGTGCCCCAGGCCAGCCGCGCCCTGCTCCAGGCTCTAGGACTGCGCGA
TGAGCCCCAGGGTGCCCCAGGCTCCGGCCGTTCCCCGGTCATGTGGCGCCTGTTTCGACGCCGGGAC
CCCCAGGAGACCAGGTCTGGCTCGCGCCGACGTCCCCAGGGTCAACCCTGCAACCGTGCCACGTGGAGG
AGCTGGGGTTCGCCGAAACATCGTGCACCACATCCCGACCGCGGTGCGCCACCCGGGCTCGGAGCC
TGTCTCGCCGCGGGGATTGCCCTGAGTGGACAGTCTGTTTCGACCTGTGCGGCTGTGGAACCCGCTGAG
CGCCCGAGCCGGGCCCGCTGGAGCTGCGTTTCGCGCGCGCGCGCGGCGGAGCCCGGAGGGCGGCTGGG
AGCTGAGCGTGGCGCAAGCGGGCCAGGGCGCGGGCGGACCCCGGGCCGGTGTCTCCGCCAGTTGGT
GCCCCCCTGGGGCCGCAAGTGCAGCGGAGCTGCTGGGCGCCGCTTGGGCTCGCAACGCCTCATGGCCG
CGCAGCCTCCGCTGGCGCTGGCGCTACGCCCCGGGCCCTGCCGCTGCGCGCGCTGGCCGAGGCT
CGCTGTGCTGGTACCCTCGACCCGCGCTGTGCCACCCCTGGCCCGCCGCGCGCGACGCCGAACC
CGTGTGGGGCGGCCCCGGGGCGCTTGTGCGCGCGCGCGGCTGTACGTGAGCTTCCGCGAGGTGGG
TGGCACCGTGGTTCATCGCGCCGCGGCTTCTGGCCAACTACTGCCAGGGTCACTGCGCGCTGCCCG
TGCCTGTGCGGGTCCGGGGGGCCCGCGCGCTCAACCAGCTGTGCTGCGCGCGCTCATGCACGCGGC
CGCCCCGGGAGCCGCGACCTGCCTGTGCTGCGCCGCGCGCTGTGCGCCATCTCCGTGCTCTTCTTT
GACAACAGCGACAACGTGGTGTGCGGCAGTATGAGGACATGGTGGTGGACGAGTGGGCTGCCG

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC214424 representing NM_001492
Red=Cloning site Green=Tags(s)

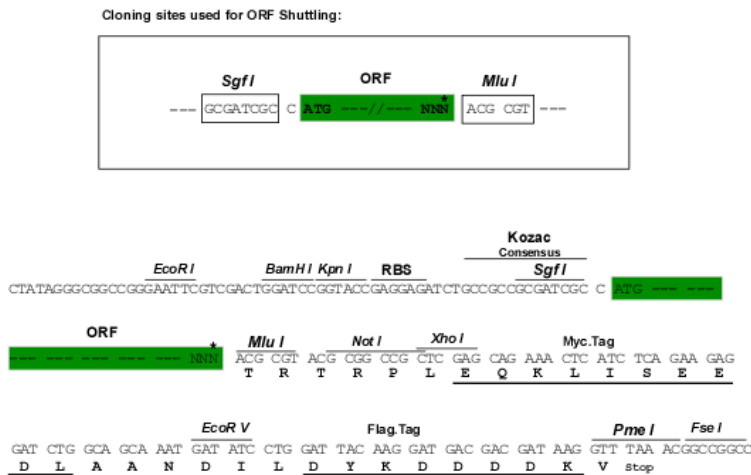
MPPPQGGPCGHLLLLLLLLPSLPLTRAPVPPGPAALLQALGLRDEPQGAPRLRPVPPVMWLFRRRD
 PQETRSRRTSPGVTLPCHVEELGVAGNIVRHIPDRGAPTRASEPVSAAGHCPEWTVVFDLSAVEPAE
 RPSRARLELRFAAAAAAPEGGWELSPAQAGQAGADPGPVLLRQLVPALGPPVRAELLGAAWARNASWP
 RSLRLALALRPRAPAACARLAEASLLLVTLDPRLCHPLARPRRDAEPVLGGPGGACRARRLYVSFREV
 GWHRWVIAPRGFLANYCQGQCALPVALS GSGGPPALNHAVLRALMHAAPGAADLPCCVPARLSPISVLF
 DNSDNVVL RQYEDMVVDECGCR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8007_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001492

ORF Size: 1116 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_001492.3](#), [NP_001483.2](#)

RefSeq Size: 2565 bp

RefSeq ORF: 1119 bp

Locus ID: 2657

UniProt ID: [P27539](#)

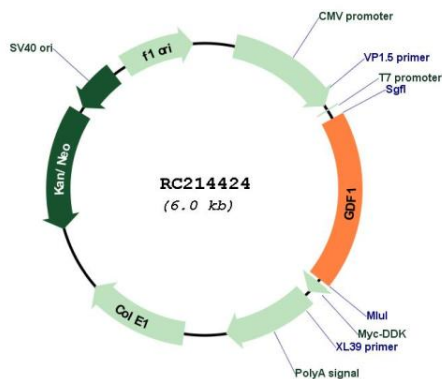
Cytogenetics: 19p13.11

Protein Families: Druggable Genome, Secreted Protein

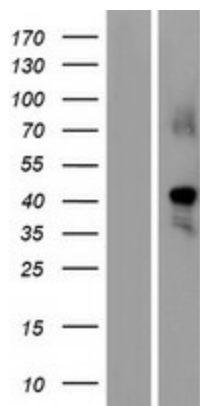
MW: 39.3 kDa

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. Studies in rodents suggest that this protein is involved in the establishment of left-right asymmetry in early embryogenesis and in neural development in later embryogenesis. The encoded protein is translated from a bicistronic mRNA that also encodes ceramide synthase 1. Mutations in this gene are associated with several congenital cardiovascular malformations. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC214424



Western blot validation of overexpression lysate (Cat# [LY419895]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214424 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).