

Specifications:

Gene:	mGdf7
Accession:	NP_001299805.1
Insert size:	1399bp
Concentration:	10µg at 0.2µg/µL

**mGDF-7 cDNA
Plasmid**

Gdf7 growth differentiation factor 7 [*Mus musculus* (house mouse)]

Also known as: BMP12

Summary:

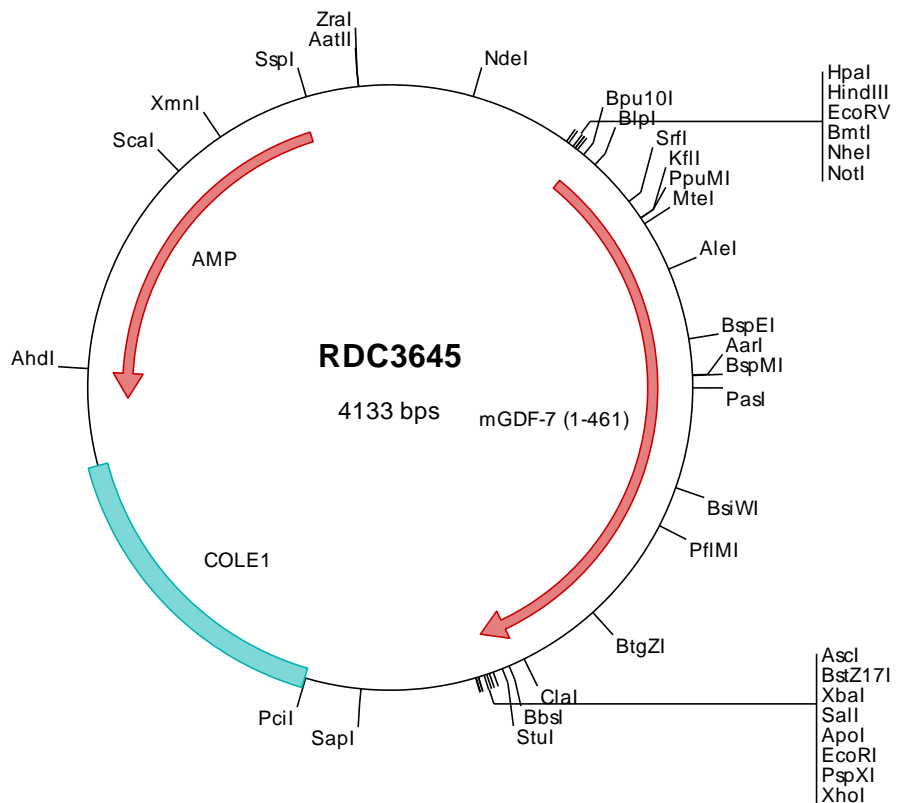
GDF7 is a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. GDF7 is proteolytically processed to generate each subunit of the disulfide-linked homodimer. GDF7 may play a role in the differentiation of tendon cells and spinal cord interneurons. A mutation in GDF7 may be associated with increased risk for Barrett's esophagus and esophageal adenocarcinoma.

Description

This shuttle vector contains the complete ORF for the gene of interest, along with a Kozak consensus sequence for optimal translation initiation. It is inserted NotI to AscI. The gene insert is flanked with convenient multiple cloning sites which can be used to easily cut and transfer the gene cassette into your desired expression vector.

Preparation and Storage

Formulation	cDNA is provided in 10 mM Tris-Cl, pH 8.5
Shipping	Ships at ambient temperature
Stability	1 year from date of receipt when stored at -20°C to -80°C
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

> RDC3645 Plasmid DNA Sequence

```

1 tcgctcgcttt cggatgatgac ggtgaaaacc totgacacat gcagctcccg gagacgggtca cagcttgtct gtaagcggat gccgggagca gacaagcccg
101 tcaggggcgcg tcagcgggtg ttggcgggtg tcggggctgg cttactatg cggcatcaga gcagattgta ctgagagtgc accatagcgc gtgtgaaata
201 ccgcacacgat gcgtaaggag aaaataccgc atcaggcgcg attgccatt caggctcgcg aactgttggg aagggcgatc ggtcggggcc tcttcctat
301 tacgccagct ggcgaaaagg ggaatgtctg caaggcgatt aagttgggta acgccagggt tttcccagtc acgacgttgt aaaacgacgg ccagtgaatt
401 ggagacgtgt taacaagctt ggatccgata tcgctagcgc ggccgcacc atggacctga cgctgccc cgctgtgt ctctggctgc tgagccttg
501 cctccccgcg gacgggctag aagctgccc ggtgctccga gcggcggggg ctggaccagc ctggagcccc ggggcgggcg gcggcggggc gacctcggc
601 cgggtccag gccctcagc tctocaggcc gctgcggttc cggttcccc agctgtgcgc cgctgccc gttctggtt caggaaacggc tcggtggtgc
701 cacaccaatt catgatgtcg ctttacagga gcctggcggg gagggctccg ctcggcgag cttcaggga cgggcggtg gacacaatca ccggcttcac
801 agaccaagca actcaagacg aaacggcggc ggccgagcca ggccagagct tctgttoga cgtaaccagc ctctccgaag ccgatgaggt ggtgaaatgc
901 gagctgccc tgctgccc gaggtctcc gaaccagaca gggacagtgc gacctcctt ccgggctgc tgctgtccac gtgccgggac gaggtggca
1001 cagctaacct gctgcaactc cgggcggcgg agccccggg cgggcggcgc tggaagcgt tcgacgtgac ggacgcgggtg cagagccacc gccctggcc
1101 gcgagcctcc cgcaagtctt gcctggtgct gcgcgcgggtg acggcctcgg agagcagccc gctggccctg agacgactgg gcttcggctg gccggcgggt
1201 ggcgagcggc gggcaactgc ggcggaggag cgcgcgctgt tggtgatctc ctcccgtac caaaggaaag agagtctgtt ccgggagatc cgagcccagg
1301 ccctgctct ccggcggcgt gcagagccc caaccggtcc aggaccaggc gctgggtcac gcaaaagccaa ctggggcgggt cgacggcggc ggcggactgc
1401 gctggtcggg actcggggag cgcaaggaaag cggtggtggc ggcgggtggc gtggcggcgg cgggcggcgc ggcggcggcg gcggcggcgg cgacggcagg
1501 ggccaocggc gcagagcccg gagccgctgc agtcgcaagt cactgcaact ggactttaag gagctgggct gggacgactg gatcctcggc ccattagact
1601 acgagggata ccactgcgag ggcgtttggc actttcctct acgctgcac ctggagccta ccaaccagc catcattcag acgtgctca actccatgac
1701 gcccgacgct gcgcaagcct cctgctgctt gcocgcaagg ctcagtcoca taagcattct ctacatogat gccgccaaca acgtggtota caagcagtac
1801 gaagacattg tggtggaggc ctggogctgc agataaaggc ggccagat actctagat cgacacccgg ggaattcctc gagcgtcgt ctctagcttg
1901 gcgtaatcat ggtcatagct gtttctctgt tgaaaattgt atccgctcac aattccacac aacatacagag ccggaagcat aaagtgtaaa gcctggggtg
2001 cctaatagag gagctaactc acattaattg cgttgcctgc actgcccctg ttcacgtcgg gaaacctgtc gtgccagctg cattaatgaa tcggccaacg
2101 tcgccccgaga ggcggtttgc gatttggggc ctcttcctgc ctgactcctc ctgactcctc gcctcgggtc gttcgggtgc ggcgagcgggt atcagctcac
2201 tcaaaaggcgg taatacgggtt atccacagaa tcaggggata acgcagaaaa gaacatgtga gcaaaaaggcc agcaaaaaggc aaaaaggccg
2301 cgttgcctggc gtttttccat agctcccgcc cccctgacga gcatcacaaa aatcgacgct caagtccagag gtggcgaaac ccgacagggac tataaagata
2401 ccaggctctt cccctggaa tagctctcct gcgctctcct tctccgacc tcgctgttac cggatacctg tccgctcttc tccctcggg agcctggcgg
2501 ctttctcaat gctcacgctg taggtatctc agttcgggtg aggtcgttgc ctccaagctg ggctgtgtgc acgaaccccc cgttcagccc agcctgtgcg
2601 ccttatccgg taactatcgt cttgagttca acccggtaag acacgactta tcgccactgg cagcagccac tggtaacagg attagcagag cgaggtatgt
2701 aggcggtgct acagagttct tgaagtgggt gcctaactac ggctacacta gaaggacagt atttggtatc tgcctctcgc tgaagcaggt taccctcggg
2801 aaaagagttg gtatgctctg atccggcaaa caaaccaccg ctggttagcg tggttttttt gtttgcaagc agcagattac gcgcagaaaa aaaggatctc
2901 aagaagatcc tttgatcttt tctacggggt ctgacgctca gtggaacgaa aactcagctt aagggatttt ggctatgaga ttatcaaaaa ggatcttcac
3001 ctagatcctt ttaaatataa aatgaagtgt taaatcaact taaagtatat atgagtaaac ttggtctgac agttaccaat gcttaatcag tgaggcaact
3101 atctcagcga tctgtctatt tctgttcatt atagttgcct gactccccgt cgtgtagata actacgatac gggagggctt accatctggc cccagtgctg
3201 caatgatacc gcgagaccca cgtcaccggc ctccagattt atcagcaata aaccagccag ccggaagggc cgagcgcaga agtggctcgt caactttatc
3301 cgcctccatc cagtctatta attggtcggc ggaagctaga gtaagtgttt cgccagttaa tagtttgccg tagtttgccg ccattgctac aggcctcgtg
3401 gtgtcacgct cgtcgttttg tatggcttca ttcagctccg gttcccacag atcaaggcga gttacatgat cccccatggt gtgcacaaaa gcggttagct
3501 ccttcggctc tccgatctgt gtcagaagta agttggcgcg agtgttatca ctcatggtta tggcagcact gcataattct cttactgtca tgcctccgtg
3601 aagatgcttt tctgtgactg gtagtactc aaccaagtca tctcgagaat agtgtatgcg gcgaccgagt tgctcttgcc cggcgtcaat acgggataat
3701 accgcgccac atagcagaac tttaaaagt ctcatcattg gaaaacgttc ttcggggcga aaactctcaa ggatcttacc gctgttgaga tccagttcga
3801 tgtaaccac tcgtgacccc aactgatctt cagcatcttt tactttcacc agcgtttctg ggtgagcaaa aacaggaagg caaaatgccg caaaaaaggg
3901 aataaggcgc acacggaaat gttgataact catactcttc ctttttcaat attattgaag catttatcag ggttattgtc tcatgagcgg atacatatt
4001 gaatgtattt agaaaaataa acaaataggg gttccgcgca catttccccg aaaaagtcca cctgacgtct aagaaacctt tattatcatg acattaacct
4101 ataaaaatag gcgtatcacg aggccctttc gtc

```

> RDC3645 Translated Insert Sequence

```

1 mdlsaaaaalc lwlslacrpr dgleaaaavl r aagagpawsp ggggggrtla rapgpsalqa aavpgpravr raagsgfrng svvphhfmms lyrslagrap
101 vaaasghrv dtitgftdqg tqdetaaaep qsf1fdvss lseadevna elrvlrrsrp epdrdsatl1 prlllstcpd eagtallhs raaeplgar
201 weafdvtдав qshrrwpras rkfc1vlrav tasessplal rrlgfgwpgg gdgggtaae rallvissrt qrkeslfrei raqaralraa aepppdpgg
301 agsrkanlgg rrrrrtalag trgaqsgggg gggggggggg gggggggagr ghrrrgrsrc srkslhvdfk elgwddwiia pldyeahyce gvcdflrsh
401 leptnhaiiq tllnsmapda apascvpar lspisilyid aannvvykqy edmvrveaccg r

```