

## Product datasheet for **RC204866**

### GDNF Receptor alpha 1 (GFRA1) (NM\_145793) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GDNF Receptor alpha 1 (GFRA1) (NM_145793) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GDNF Receptor alpha 1
Synonyms:	GDNFR; GDNFRA; GFR-ALPHA-1; GFRalpha-1; RET1L; RETL1; TRNR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC204866 representing NM\_145793  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTTCTGGCGACCCTGTACTTCGCGCTGCCGCTCTTGGACTTGCTCCTGTCGGCCGAAGTGAGCGGCG  
 GAGACCGCTGGATTGCGTGAAAGCCAGTGATCAGTGCCTGAAGGAGCAGAGCTGCAGCACCAAGTACCG  
 CACGCTAAGGCAGTGCCTGGCGGCAAGGAGACCAACTTCAGCCTGGCATCCGGCCTGGAGGCCAAGGAT  
 GAGTGCCGACGCGCCATGGAGGCCCTGAAGCAGAAGTCGCTCTACAACCTGCCGCTGCAAGCGGGGTATGA  
 AGAAGGAGAAGAAGTGCCTGCGCATTTACTGGAGCATGTACCAGAGCCTGCAGGGAAATGATCTGCTGGA  
 GGATCCCCATATGAACCAAGTTAACAGCAGATTGTCAGATATATCCGGTGGTCCCATTTCATATCAGTG  
 GAGCACATTCCCAAAGGGAACAAGTGCCTGGATGCAGCGAAGGCCTGCAACCTCGACGACATTTGCAAGA  
 AGTACAGGTGGCGTACATCACCCGTGCACCACCAGCGTGTCCAATGATGTCTGCAACCCGCCGAAGTG  
 CCACAAGGCCCTCCGGCAGTTCTTTGACAAGGTCGCGCAAGCAGACTACGGAATGCTCTTCTGCTCC  
 TGCCGGGACATCGCTGCACAGAGCGGAGGCGACAGACCATCGTGCCTGTGTGCTCCTATGAAGAGAGGG  
 AGAAGCCCAACTGTTTGAATTTGCAAGGACTCCTGCAAGACGAATTACATCTGCAGATCTCGCCTTGGCGA  
 TTTTTTACCAACTGCCAGCCAGAGTCAAGGTCTGTGACGAGCTGTCTAAAGGAAAACCTACGCTGACTGC  
 CTCCTCGCTACTCGGGGCTTATTGGCAGATCATGACCCCAACTACATAGACTCCAGTAGCCTCAGTG  
 TGGCCCATGGTGTGACTGCAGCAACAGTGGGAACGACCTAGAAGAGTGTGAAATTTTTGAATTTCTT  
 CAAGGACAATACATGTCTTAAAATGCAATTAAGCCTTTGGCAATGGTCCGATGTGACCGTGTGGCAG  
 CCAGCCTTCCAGTACAGACCACCACTGCCACTACCACCACTGCCCTCCGGGTTAAGAACAAGCCCTGG  
 GGCCAGCAGGCTGAGAATGAAATCCCACTCATGTTTTGCCACCGTGTGCAAAATTTACAGGCAGAGAA  
 GCTGAAAATCCAATGTGTGGGCAATACACACTCTGTATTTCCAATGGTAATTATGAAAAAGAAGGTCTC  
 GGTGCTTCCAGCCACATAACCACAAAATCAATGGCTGCTCCTCCAAGCTGTGGTCTGAGCCCACTGCTGG  
 TCCTGGTGGTAACCGCTCTGTCCACCCTATTATCTTTAACAGAAACATCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204866 representing NM\_145793  
 Red=Cloning site Green=Tags(s)

MFLATLYFALPLDLLLSAEVSGDRLDCVKASDQCLKEQSCSTKYRTLRLQCVAGKETNFSLASGLEAKD  
 ECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNLLEDSPYEPVNSRLSDIFRVVPIVSV  
 EHIPKGNCLDAAKACNLDDICKKYRSAYITPCTTSVSNVDCNRRKCHKALRQFFDKVPKHSYGMFLFCS  
 CRDIACCTERRRQTIQVPCSYEEREKPNLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADC  
 LLAYSGLIGTVMTPNYIDSSSLVAPWCDCNSGNDLEECLKFLNFFKDNTCLKNAIQAFNGSDVTVWQ  
 PAFPVQTTTATTTALRVKNKPLGPAGSENEIPTHVLPCCANLQAQKLKSNVSGNTHLCLISNGYEKEGL  
 GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLLSLTETS

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mg3523\\_g08.zip](https://cdn.origene.com/chromatograms/mg3523_g08.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_145793

**ORF Size:** 1380 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\\_145793.1](#), [NP\\_665736.1](#)

**RefSeq Size:** 2592 bp

**RefSeq ORF:** 1383 bp

**Locus ID:** 2674

UniProt ID: [P56159](#)

Cytogenetics: 10q25.3

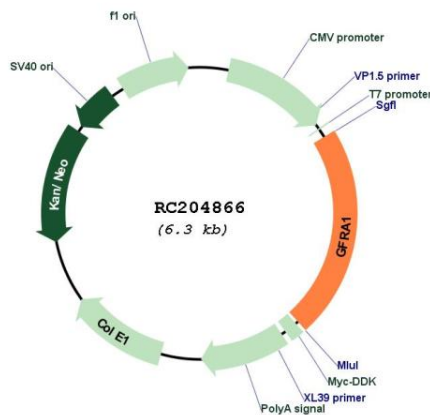
Domains: GDNF

Protein Families: Druggable Genome

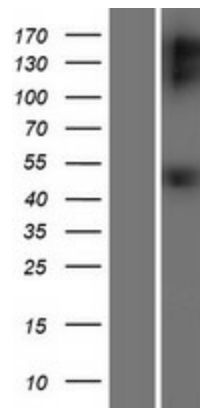
MW: 48.3 kDa

**Gene Summary:** This gene encodes a member of the glial cell line-derived neurotrophic factor receptor (GDNFR) family of proteins. The encoded preproprotein is proteolytically processed to generate the mature receptor. Glial cell line-derived neurotrophic factor (GDNF) and neurturin (NTN) are two structurally related, potent neurotrophic factors that play key roles in the control of neuron survival and differentiation. This receptor is a glycosylphosphatidylinositol (GPI)-linked cell surface receptor for both GDNF and NTN, and mediates activation of the RET tyrosine kinase receptor. This gene is a candidate gene for Hirschsprung disease. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed. [provided by RefSeq, Jan 2016]

**Product images:**



Circular map for RC204866



Western blot validation of overexpression lysate (Cat# [LY428898]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC226704] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).