

## Product datasheet for **RG204866**

### **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:	TurboGFP
Symbol:	GFRA1
Synonyms:	GDNFR; GDNFRA; GFR-ALPHA-1; GFRalpha-1; RET1L; RETL1; TRNR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG204866 representing NM\_145793  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTCTGGCGACCCTGTACTTCGCGCTGCCGCTCTTGGACTTGCTCCTGTCGGCCGAAGTGAGCGGCG  
 GAGACCGCTGGATTGCGTGAAAGCCAGTGATCAGTGCCTGAAGGAGCAGAGCTGCAGCACCAAGTACCG  
 CACGCTAAGGCAGTGCCTGGCGGCAAGGAGACCAACTTCAGCCTGGCATCCGGCCTGGAGGCCAAGGAT  
 GAGTGCCGACGCGCCATGGAGGCCCTGAAGCAGAAGTCGCTCTACAACCTGCCGCTGCAAGCGGGTATGA  
 AGAAGGAGAAGAAGTGCCTGCGCATTTACTGGAGCATGTACCAGAGCCTGCAGGGAAATGATCTGCTGGA  
 GGATCCCCATATGAACCACTTAACAGCAGATTGTGAGATATATCCGGTGGTCCCATTCATATCAGTG  
 GAGCACATTTCCAAAGGGAACAAGTGCCTGGATGCAGCGAAGGCCTGCAACCTCGACGACATTTGCAAGA  
 AGTACAGGTGGCGTACATCACCCGTGCACCACAGCGTGTCCAATGATGTCTGCAACCGCCGCAAGTG  
 CCACAAGGCCCTCCGGCAGTTCTTTGACAAGGTCCCGCCAAGCACAGCTACGGAATGCTCTTCTGCTCC  
 TGCCGGGACATCGCTGCACAGAGCGGAGGCGACAGACCATCGTGCCTGTGTGCTCCTATGAAGAGAGGG  
 AGAAGCCCAACTGTTTGAATTTGCAAGACTCCTGCAAGACGAATTACATCTGCAGATCTCGCCTTGGCGA  
 TTTTTTACCAACTGCCAGCCAGAGTCAAGGTCTGTGACGAGCTGTCTAAAGGAAAACACTGCTGACTGC  
 CTCCTCGCTACTCGGGCTTATTGGCAGATCATGACCCCAACTACATAGACTCCAGTAGCCTCAGTG  
 TGGCCCATGGTGTGACTGCAGCAACAGTGGGAACGACCTAGAAGAGTGTGAAATTTTTGAATTTCTT  
 CAAGGACAATACATGTCTTAAAATGCAATTCAAGCCTTTGGCAATGGTCCGATGTGACCGTGTGGCAG  
 CCAGCCTTCCAGTACAGACCACCACTGCCACTACCACCACTGCCCTCCGGGTTAAGAACAAGCCCTGG  
 GGCCAGCAGGGTCTGAGAATGAAATCCCACATGTTTTGCCACCGTGTGCAAAATTTACAGGCACAGAA  
 GCTGAAATCCAATGTGTGGGCAATACACACCTCTGTATTTCCAATGGTAATTATGAAAAAGAAGGTCTC  
 GGTGCTTCCAGCCACATAACCACAAAATCAATGGCTGCTCCTCCAAGCTGTGGTCTGAGCCCACTGCTGG  
 TCCTGGTGGTAACCGCTCTGTCCACCCTATTATCTTTAACAGAAACATCA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

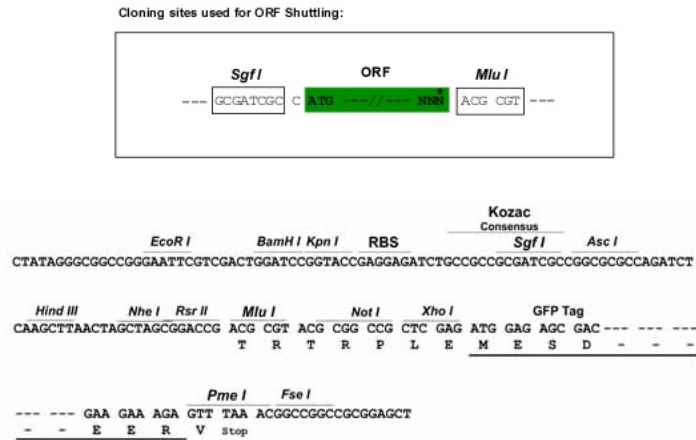
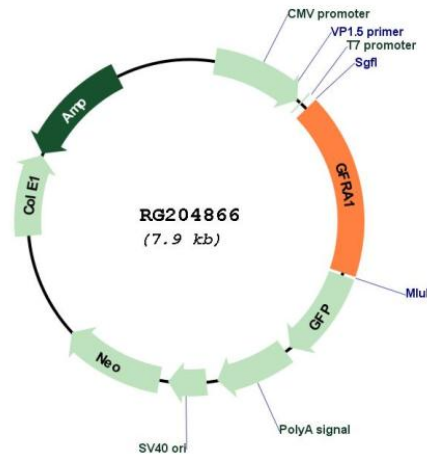
>RG204866 representing NM\_145793  
 Red=Cloning site Green=Tags(s)

MFLATLYFALPLDLLLSAEVSGGDRLDVCVKASDQCLKEQSCSTKYRTLRCQVAGKETNFSLASGLEAKD  
 ECRSAMEALKQKSLYNCRCKRGMKKEKNCRIYWSMYQSLQGNLLEDSPYEPVNSRLSDIFRVVPIISV  
 EHIPKGNCLDAKACNLDDICKKYRSAYITPCTTSVSNVDCNRKCHKALRQFFDKVPKHSYGMFLFCS  
 CRDIACERRRQTIVPVCSEEREKPNLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADC  
 LLAYSGLIGTVMTPNYIDSSSLVAPWDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFNGSDVTVWQ  
 PAFPVQTTTATTTALRVKNKPLGPAGSENEIPTHVLPCCANLQAQKLKSNVSGNTHLCISNGNYEKEGL  
 GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLLSLTETS

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**Plasmid Map:**


**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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_145793.1</a> , <a href="#">NP_665736.1</a>
<b>RefSeq Size:</b>	2592 bp
<b>RefSeq ORF:</b>	1383 bp
<b>Locus ID:</b>	2674
<b>UniProt ID:</b>	<a href="#">P56159</a>
<b>Cytogenetics:</b>	10q25.3
<b>Domains:</b>	GDNF
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	<p>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]</p>