

Product datasheet for **RG219943**

GDNF Receptor alpha 1 (GFRA1) (NM_005264) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GDNF Receptor alpha 1 (GFRA1) (NM_005264) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GDNF Receptor alpha 1
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:

>RG219943 representing NM_005264
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTTCTGCGACCCCTGTACTTCGCGCTGCCGCTCTTGGACTTGCTCCTGTCGGCCGAAGTGAGCGGCG
 GAGACCGCTGGATTGCGTGAAAGCCAGTGATCAGTGCCTGAAGGAGCAGAGCTGCAGCACCAAGTACCG
 CACGCTAAGGCAGTGCCTGGCGGCAAGGAGACCAACTTCAGCCTGGCATCCGGCCTGGAGGCCAAGGAT
 GAGTGCCGACGCCATGGAGGCCCTGAAGCAGAAGTCGCTCTACAACCTGCCGCTGCAAGCGGGTATGA
 AGAAGGAGAAGAAGTGCCTGCGCATTTACTGGAGCATGTACCAGAGCCTGCAGGGAAATGATCTGCTGGA
 GGATCCCATATGAACAGTTAACAGCAGATTGTCAGATATATCCGGTGGTCCCATTCATATCAGAT
 GTTTTTCAGCAAGTGGAGCACATCCCAAAGGGAACAACCTGCCTGGATGCAGCGAAGGCCTGCAACCTCG
 ACGACATTTCAAGAAGTACAGTGGCGTACATCACCCCGTGCACCACCAGCGTGTCCAATGATGTCTG
 CAACCGCCGCAAGTGCCACAAGGCCCTCCGGCAGTTCTTTGACAAGGTCCCGGCCAAGCACAGCTACGGA
 ATGCTCTTCTGCTCCTGCCGGGACATCGCTGCACAGAGCGGAGGCGACAGACCATCGTGCCTGTGTGCT
 CCTATGAAGAGAGGGAGAAGCCCAACTGTTTGAATTTGCAGGACTCCTGCAAGACGAATTACATCTGCAG
 ATCTCGCCTTGGCGATTTTTTACCAACTGCCAGCCAGAGTCAAGGTCTGTGAGCAGCTGTCTAAAGGAA
 AACTACGCTGACTGCCTCCTCGCTACTCGGGCTTATTGGCACAGTCAAGCCCAACTACATAGACT
 CCAGTAGCCTCAGTGTGGCCCATGGTGTGACTGCAGCAACAGTGGGAACGACCTAGAAGAGTGTCTGAA
 ATTTTTGAATTTCTTCAAGGACAATACATGTCTTAAAAATGCAATTCAAGCCTTTGGCAATGGCTCCGAT
 GTGACCGTGTGGCAGCCAGCCTTCCAGTACAGACCACCACTGCCACTACCACCCTGCCCTCCGGGTTA
 AGAACAAGCCCTGGGGCCAGCAGGCTTGAGAATGAAATCCCACTCATGTTTTGCCACCGTGTGCAAA
 TTTACAGGCACAGAAGCTGAAATCCAATGTGTGGGCAATACACACCTCTGTATTTCCAATGGTAATTAT
 GAAAAAGAAGGTCTCGGTGCTTCCAGCCACATAACCACAAAAATCAATGGGTGCTCCTCCAAGCTGTGGT
 TGAGCCCACTGCTGGTCTGGTGAACCGCTCTGTCCACCCTATTATCTTTAACAGAAACATCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

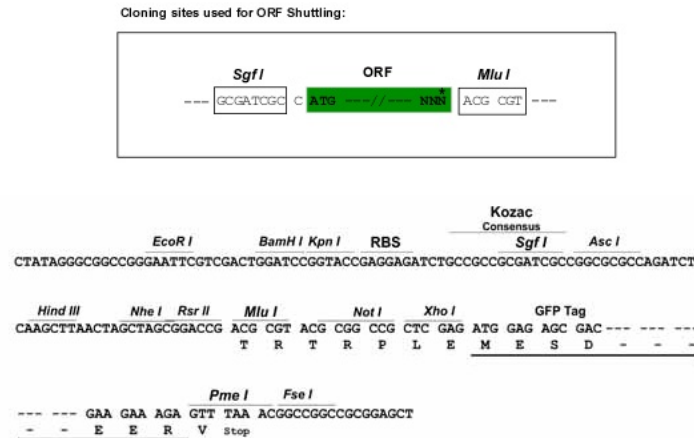
>RG219943 representing NM_005264
 Red=Cloning site Green=Tags(s)

MFLATLYFALPLDLLLSAEVSGGDRLCDVKASDQCLKEQSCSTKYRTLRCQVAGKETNFSLASGLEAKD
 ECRSAMEALKQKSLYNCRCKRGMKKEKNCRLRIYWSMYQSLQGNLLEDSPYEPVNSRLSDIFRVVPI
 VFQQVEHIPKGNCLDAKACNLDDICKKYRSAYITPCTTSVSNVDCNRRKCHKALRQFFDKVPAKHSYG
 MLFCSCRDIACTERRRQTIVPVCSEEREKPNCLNLQDSCKTNYICRSRLADFFTNCPESRSVSSCLKE
 NYADCLLAYSGLIGTVMPNYIDSSLSVAPWDCSNSGNDLEELKFLNFFKDNTCLKNAIQAFGNGSD
 VTVWQPAFPVQTTTATTTTALRVKNKPLGPAGSENEIPTHVLPCCANLQAQKLKSNVSGNTHLCISNGNY
 EKEGLGASSHITTKSMAAPPSCGLSPLLVLVVTALSTLLSLTETS

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_005264

ORF Size: 1395 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_005264.2](#), [NP_005255.1](#)

RefSeq Size: 2542 bp

RefSeq ORF: 1398 bp

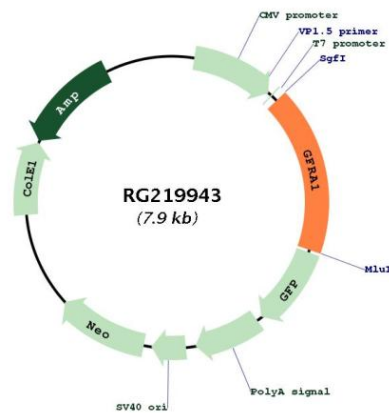
Locus ID: 2674

UniProt ID: [P56159](#)

Cytogenetics: 10q25.3

Domains:	GDNF
Protein Families:	Druggable Genome
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 RG219943