OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC226704

GDNF Receptor alpha 1 (GFRA1) (NM_001145453) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GDNF Receptor alpha 1 (GFRA1) (NM_001145453) 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)

ORF Nucleotide Sequence:

>RC226704 representing NM_001145453
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTTCCTGGCGACCCTGTACTTCGCGCTGCCGCTCTTGGACTTGCTCCTGTCGGCCGAAGTGAGCGGCG
GAGACCGCCTGGATTGCGTGAAAGCCAGTGATCAGTGCCTGAAGGAGCAGAGCTGCAGCACCAAGTACCG
CACGCTAAGGCAGTGCGTGGCGGGCAAGGAGACCAACTTCAGCCTGGCATCCGGCCTGGAGGCCAAGGAT
GAGTGCCGCAGCGCCATGGAGGCCCTGAAGCAGAAGTCGCTCTACAACTGCCGCTGCAAGCGGGGTATGA
AGAAGGAGAAGAACTGCCTGCGCATTTACTGGAGCATGTACCAGAGCCTGCAGGGAAATGATCTGCTGGA
GGATTCCCCATATGAACCAGTTAACAGCAGATTGTCAGATATATTCCGGGTGGTCCCATTCATATCAGTG
GAGCACATTCCCAAAGGGAACAACTGCCTGGATGCAGCGAAGGCCTGCAACCTCGACGACATTTGCAAGA
AGTACAGGTCGGCGTACATCACCCCGTGCACCACCAGCGTGTCCAATGATGTCTGCAACCGCCGCAAGTG
CCACAAGGCCCTCCGGCAGTTCTTTGACAAGGTCCCGGCCAAGCACAGCTACGGAATGCTCTTCTGCTCC
TGCCGGGACATCGCCTGCACAGAGCGGAGGCGACAGACCATCGTGCCTGTGTGCTCCTATGAAGAGAGGG
AGAAGCCCAACTGTTTGAATTTGCAGGACTCCTGCAAGACGAATTACATCTGCAGATCTCGCCTTGCGGA
TTTTTTTACCAACTGCCAGCCAGAGTCAAGGTCTGTCAGCAGCTGTCTAAAGGAAAACTACGCTGACTGC
CTCCTCGCCTACTCGGGGCTTATTGGCACAGTCATGACCCCCAACTACATAGACTCCAGTAGCCTCAGTG
TGGCCCCATGGTGTGACTGCAGCAACAGTGGGAACGACCTAGAAGAGTGCTTGAAATTTTTGAATTTCTT
CAAGGACAATACATGTCTTAAAAATGCAATTCAAGCCTTTGGCAATGGCTCCGATGTGACCGTGTGGCAG
CCAGCCTTCCCAGTACAGACCACCACTGCCACTACCACCACTGCCCTCCGGGTTAAGAACAAGCCCCTGG
GGCCAGCAGGGTCTGAGAATGAAATTCCCACTCATGTTTTGCCACCGTGTGCAAATTTACAGGCACAGAA
GCTGAAATCCAATGTGTCGGGCAATACACACCTCTGTATTTCCAATGGTAATTATGAAAAAGAAGGTCTC
GGTGCTTCCAGCCACATAACCACAAAATCAATGGCTGCTCCTCCAAGCTGTGGTCTGAGCCCACTGCTGG
TCCTGGTGGTAACCGCTCTGTCCACCCTATTATCTTTAACAGAAACATCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC226704 representing NM_001145453
Red=Cloning site Green=Tags(s)

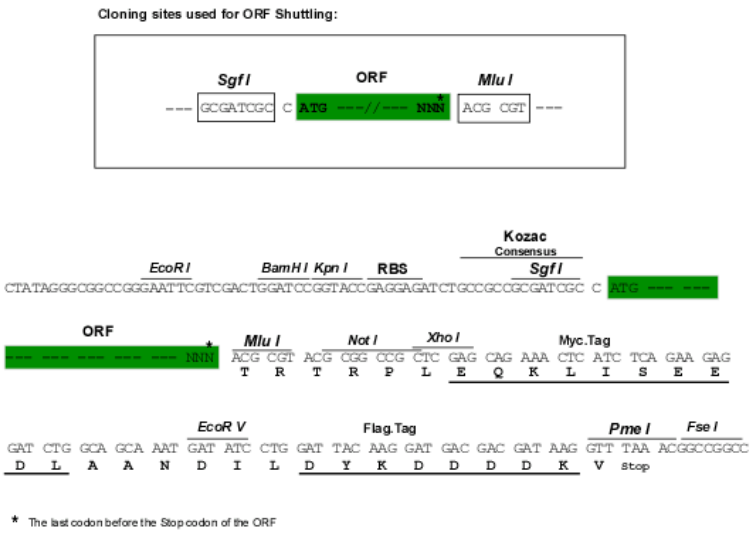
MFLATLYFALPLLDLLLSAEVSGGDRLDCVKASDQCLKEQSCSTKYRTLRQCVAGKETNFSLASGLEAKD
ECRSAMEALKQKSLYNCRCKRGMKKEKNCLRIYWSMYQSLQGNDLLEDSPYEPVNSRLSDIFRVVPFISV
EHIPKGNNCLDAAKACNLDDICKKYRSAYITPCTTSVSNDVCNRRKCHKALRQFFDKVPAKHSYGMLFCS
CRDIACTERRRQTIVPVCSYEEREKPNCLNLQDSCKTNYICRSRLADFFTNCQPESRSVSSCLKENYADC
LLAYSGLIGTVMTPNYIDSSSLSVAPWCDCSNSGNDLEECLKFLNFFKDNTCLKNAIQAFGNGSDVTVWQ
PAFPVQTTTATTTTALRVKNKPLGPAGSENEIPTHVLPPCANLQAQKLKSNVSGNTHLCISNGNYEKEGL
GASSHITTKSMAAPPSCGLSPLLVLVVTALSTLLSLTETS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3523_g08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001145453

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.

RefSeq: NM_001145453.4

RefSeq ORF: 1383 bp

Locus ID: 2674

UniProt ID: P56159

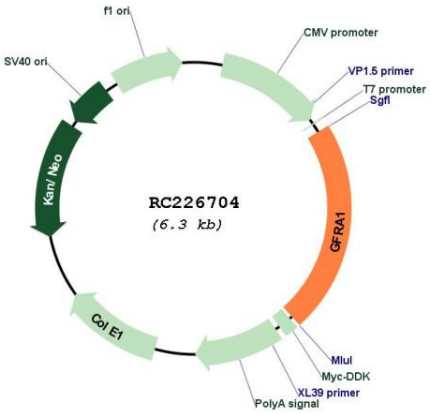
Cytogenetics: 10q25.3

Protein Families: Druggable Genome

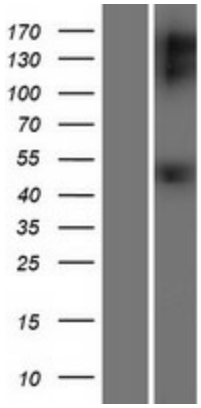
MW: 50.84 kDa

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]

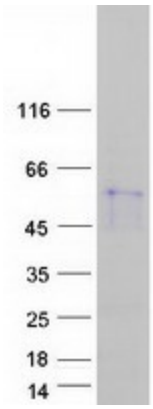
Product images:



Circular map for RC226704



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



Coomassie blue staining of purified GFRA1 protein (Cat# [TP326704]). The protein was produced from HEK293T cells transfected with GFRA1 cDNA clone (Cat# RC226704) using MegaTran 2.0 (Cat# [TT210002]).