

Product datasheet for **RG215533**

FGFR3 (NM_000142) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGFR3 (NM_000142) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FGFR3
Synonyms:	ACH; CD333; CEK2; HSGFR3EX; JTK4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG215533 representing NM_000142
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCGCCCCTGCCTGCGCCCTCGCGCTCTCGTGGCCGTGGCCATCGTGGCCGGCGCCTCCTCGGAGT
 CCTTGGGACGGAGCAGCGCGTCTGGGGCAGCGGCAGAAGTCCCGGGCCAGAGCCCGCCAGCAGGA
 GCAGTTGGTCTTCGGCAGCGGGGATGCTGTGGAGCTGAGCTGTCCCCGCCCCGGGGTGGTCCCATGGGG
 CCCACTGTCTGGGTCAAGGATGGCACAGGGCTGGTGCCTCGGAGCGTGTCTGGTGGGGCCCCAGCGGC
 TGCAGGTGCTGAATGCCTCCACGAGGACTCCGGGCCTACAGCTGCCGGCAGCGGCTCACGACGCGCT
 ACTGTGCCACTTCAGTGTGCGGGTACAGACGCTCCATCCTCGGGAGATGACGAAGACGGGGAGGACGAG
 GCTGAGGACACAGGTGTGGACACAGGGGCCCTTACTGGACACGGCCGAGCGGATGGACAAGAAGCTGC
 TGGCCGTGCCGGCCCAACACCGTCCGCTTCCGCTGCCAGCCGCTGGCAACCCCACTCCCTCCATCTC
 CTGGCTGAAGAACGGCAGGGAGTCCGCGGCGAGCACCGCATTGGAGGCATCAAGCTGCGGCATCAGCAG
 TGGAGCCTGGTCAATGAAAGCGTGGTGCCTCGGACCGCGCAACTACACCTGCGTCTGGAGAACAAGT
 TTGGCAGCATCCGGCAGACGTACACGCTGGACGTGCTGGAGCGCTCCCCGACCGGCCATCCTGCAGGC
 GGGGCTGCCGGCAACCAGACGGCGGTGCTGGGCAGCGACGTGGAGTTCCACTGCAAGGTGTACAGTGAC
 GCACAGCCCCACATCCAGTGGTCAAGCACGTGGAGGTGAATGGCAGCAAGTGGGCCGGACGGCACAC
 CCTACGTTACCGTGTCAAGACGGCGGGGCTAACACCACCGACAAGGAGCTAGAGGTTCTCTCCTTGCA
 CAACGTCACTTTGAGGACGCCGGGAGTACACCTGCCTGGCGGGCAATTCTATTGGGTTTTCTCATCAC
 TCTGCGTGGTGGTGGTCTGCCAGCCGAGGAGAGCTGGTGGAGGCTGACGAGGCGGGCAGTGTGTATG
 CAGGCATCCTCAGCTACGGGGTGGCTTCTTCTGTTTCTCCTGGTGGTGGCGGCTGTGACGCTTCCCG
 CCTGCGCAGCCCCCAAGAAAGGCTGGGCTCCCCACCGTGACAAGATCTCCCGCTTCCCGCTCAAG
 CGACAGGTGTCCCTGGAGTCCAACGCGTCCATGAGCTCCAACACCCACTGGTGGCATCGCAAGGCTGT
 CCTCAGGGGAGGGCCCCACGCTGGCCAATGTCTCCGAGCTCGAGCTGCCTGCCGACCCCAATGGGAGCT
 GTCTCGGGCCCGCTGACCCTGGCAAGCCCTTGGGAGGGCTGCTTCGGCCAGGTGGTATGGCGGAG
 GCCATCGGCATTGACAAGGACCGGGCCCAAGCCTGTCACCGTAGCCGTGAAGATGCTGAAAGACGATG
 CCACTGACAAGGACCTGTCCGACCTGGTGTCTGAGATGGAGATGATGAAGATGATCGGCAAAACAAAA
 CATCATCAACCTGCTGGGCGCTGCACGCAGGGCGGGCCCTGTACGTGCTGGTGGAGTACGCGGCCAAG
 GGTAACCTGCGGGAGTTTCTGCGGGCGCGGGCCCCCGGCCTGGACTACTCCTTCGACACCTGCAAGC
 CGCCCCGAGGAGCAGCTACCTTCAAGGACCTGGTGTCTGTGCCTACCAGGTGGCCCGGGCATGGAGTA
 CTTGGCCTCCCAGAAGTGATCCACAGGACCTGGCTGCCCGCAATGTGCTGGTGGACCGAGGACAACGTG
 ATGAAGATCGCAGACTTCGGGCTGGCCCGGACGTGCACAACCTCGACTACTACAAGAAGACAACCAACG
 GCCGGTGCCTGTGAAGTGGATGGCGCTGAGGCCCTGTTTGACCGAGTCTACACTACCCAGAGTGACGT
 CTGGTCTTTGGGGTCTGCTCTGGGAGATCTTACGCTGGGGGGCTCCCCGTACCCCGGCATCCCTGTG
 GAGGAGCTTTCAAGCTGCTGAAGGAGGGCCACCGCATGGACAAGCCCGCAACTGCACACACGACCTGT
 ACATGATCATGCGGGAGTGTGGCATGCCGCGCCCTCCAGAGGCCACCTTCAAGCAGCTGGTGGAGGA
 CCTGGACCGTGTCTTACCGTGACGTCCACCGACGAGTACCTGGACCTGTCCGGCGCTTTGAGCAGTAC
 TCCCCGGTGGCCAGGACACCCCAAGCTCCAGCTCCTCAGGGGACGACTCCGTGTTTGCCACGACCTGC
 TGCCCCGGCCCCACCCAGCAGTGGGGCTCGCGGACG

AC**CGGCCGCT**CGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215533 representing NM_000142
 Red=Cloning site Green=Tags(s)

```

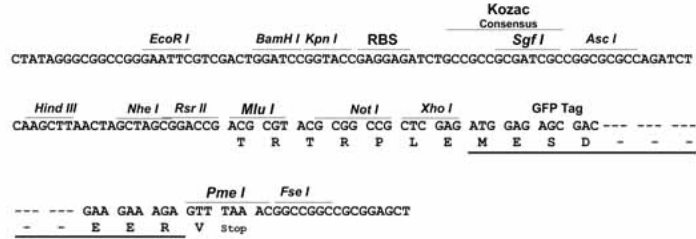
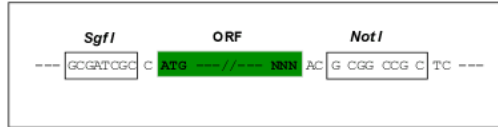
MGAPACALALCVAVAIVAGASSESLGTEQRVVGRAAEVPGPEPGQEQLVFGSGDAVELSCPPPGGGPMG
PTVWVKDGTGLVPSERVLVGPQRLQVLNASHEDSGAYSCRQRLTQRVLCHF SVRVTDAPSSGDDEDEGEDE
AEDTGVDTGAPYWTRPERMDKLLAVPAANTVRFRCPAAGNPTPSISWLKNGREFRGEHRIGGIKLRHQQ
WSLVMESVVPSSDRGNVTCVVENKFGSIRQTYTLDVLESPHRPILQAGLPANQTAVLGSDVEFHCKVYSD
AQPHIQWLKHVEVNGSKVGPDPYVTVLKTAGANTTDKELEVL SLHNVT FEDAGEYTCLAGNSIGFSHH
SAWL VVLPAAEEELVEADEAGSVYAGILSYGVGFFL F ILVVAAVTLCRLRSPPKKG LGSPTVHKISRFLK
RQVSLESNASMSSNTPLVRIARLSSGEGPTLANVSELELPADPKWELSRARLTGKPLGEGCFGQVYMAE
AIGIDKDRAAKPVTVAVKMLKDDATDKDLSLVSEMEMMKMIGKHKNIINLLGACTQGGPLYVLYEYAAK
GNLREFLRARRPPGLDYSFDTCKPPEEQ LTFKDLVSCAYQVARGMEY LASQKCIHRDLAARNVLTEDNV
MKIADFLARDVHNL DYYKTTNGRLPVKWM APEALFDRVYTHQSDVWSFGVLLWEIFTLGGSPYPGIPV
EELFKLLKEGHRMDKPANCTHDL YMIMRECWAAPSQRPTFKQLVEDLDRVLT V TSTDEYLDLSAPFEQY
SPGGQDTPSSSSSGD DSVFAHDLLPPAPPSSGGSRT
  
```

TRPLE - GFP Tag - V

Restriction Sites: Sgfl-NotI

Cloning Scheme:

Cloning sites used for ORF Shutting:


ACCN: NM_000142

ORF Size: 2418 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_000142.2](#), [NP_000133.1](#)

RefSeq Size: 4093 bp

RefSeq ORF: 2421 bp

Locus ID: 2261

UniProt ID: [P22607](#)

Cytogenetics: 4p16.3

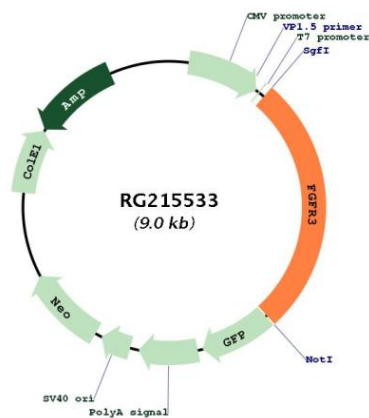
Domains: pkinase, TyrKc, S_TKc, ig, IGc2, IG

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

Protein Pathways: Bladder cancer, Endocytosis, MAPK signaling pathway, Pathways in cancer, Regulation of actin cytoskeleton

Gene Summary:

This gene encodes a member of the fibroblast growth factor receptor (FGFR) family, with its amino acid sequence being highly conserved between members and among divergent species. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein would consist of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member binds acidic and basic fibroblast growth hormone and plays a role in bone development and maintenance. Mutations in this gene lead to craniosynostosis and multiple types of skeletal dysplasia. [provided by RefSeq, Aug 2017]

Product images:


Circular map for RG215533