

## Product datasheet for **RG217098**

### **FGFR2 (NM\_000141) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FGFR2 (NM_000141) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FGFR2
Synonyms:	BBDS; BEK; BFR-1; CD332; CEK3; CFD1; ECT1; JWS; K-SAM; KGFR; TK14; TK25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG217098 representing NM\_000141  
 Red=Cloning site Blue=ORF Green=Tags(s)

GACGTTGTATACGACTCCTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGGCGCGCC

ATGGTCAGCTGGGGTCGTTTCATCTGCCTGGTCGTGGTACCATGGCAACCTTGTCCCTGGCCCGGCCCT  
 CCTTCAGTTTAGTTGAGGATACACATTAGAGCCAGAAGGAGCACCATACTGGACCAACACAGAAAAGAT  
 GGAAAAGCGGCTCCATGCTGTGCCTGCGGCCAACACTGTCAAGTTTCGCTGCCAGCCGGGGGAACCCA  
 ATGCCAACCATGCGGTGGCTGAAAAACGGGAAGGAGTTTAAGCAGGAGCATCGCATTGGAGGCTACAAGG  
 TACGAAACCAGCACTGGAGCCTCATTATGGAAAGTGTGGTCCCATCTGACAAGGGAAATTACCTGTGT  
 GGTGGAGAATGAATACGGGTCCATCAATCACACGTACCACCTGGATGTTGTGGAGCGATCGCCTCACCGG  
 CCCATCCTCCAAGCCGACTGCCGGCAATGCCTCCACAGTGGTCGGAGGAGACGTAGAGTTTGTCTGCA  
 AGGTTTACAGTGATGCCAGCCCCACATCCAGTGGATCAAGCACGTGAAAAGAACGGCAGTAAATACGG  
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 GTTCTCTATATTCGGAATGTAACTTTTGAGGACGCTGGGGAATACGTGCTTGGCGGTAATTCTATTG  
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 CCCAGACTACCTGGAGATAGCCATTTACTGCATAGGGGTCTTCTTAATCGCCTGTATGGTGGTAACAGTC  
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 CCAAACGTATCCCCGCGGAGACAGGTTTCGGCTGAGTCCAGCTCCTCCATGAACCTCAACACCCCGCT  
 GGTGAGGATAACAACACGCCTCTCTTCAACGGCAGACACCCCATGCTGGCAGGGGTCTCCGAGTATGAA  
 CTTCCAGAGGACCAAAATGGGAGTTTCCAAGAGATAAGCTGACACTGGCAAGCCCTGGGAGAAGGTT  
 GCTTTGGCAAGTGGTCATGGCGGAAGCAGTGGGAATTGACAAAGACAAGCCCAAGGAGGCGGTACCCGT  
 GGCCGTGAAGATGTTGAAAGATGATGCCACAGAGAAAGACCTTTCTGATCTGGTGTGAGAGATGGAGATG  
 ATGAAGATGATTGGGAAACACAAGAATATCATAAATCTTCTTGGAGCCTGCACACAGGATGGGCCTCTCT  
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 GGAGTACTCCTATGACATTAACCGTGTTCCTGAGGAGCAGATGACCTTCAAGGACTTGGTGTGATGCACC  
 TACCAGCTGGCCAGAGGCATGGAGTACTGGCTTCCAAAAATGTATTATCGAGATTTAGCAGCCAGAA  
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 AGAGTATACACTCATCAGAGTGTCTGGTCTTCGGGTGTTAATGTGGGAGATCTTCACTTTAGGGG  
 GCTCGCCCTACCCAGGATTCCCGTGGAGGAACTTTTAAGCTGCTGAAGGAAGGACACAGAATGGATAA  
 GCCAGCCAACTGCACCAACGAAGTACATGATGATGAGGGACTGTTGGCATGCAGTGCCCTCCCAGAGA  
 CCAACGTTCAAGCAGTTGGTAGAAGACTTGGATCGAATTTCACTCTCACAACCAATGAGGAATACTTGG  
 ACCTCAGCCAACCTCTCGAACAGTATTACCTAGTTACCCTGACACAAGAAGTTCTTGTCTTCAGGAGA  
 TGATTCTGTTTTTCTCCAGACCCATGCCTTACGAACCATGCCTTCTCAGTATCCACACATAAACGGC  
 AGTGTTAAAACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

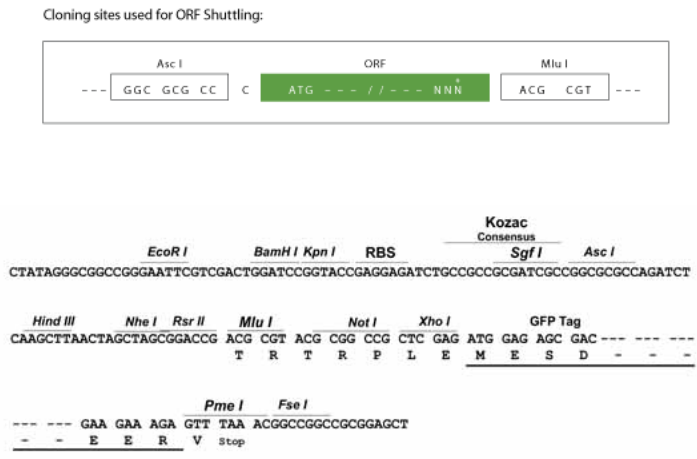
**Protein Sequence:** >RG217098 representing NM\_000141  
 Red=Cloning site Green=Tags(s)

MVSWGRFICLVVVTMATLSLARPSFSLVEDTTLEPEGAPYWTNTEKMEKRLHAVPAANTVKFRCPAGGNP  
 MPTMRWLKNGKEFKQEHRIGGKYVRNQHWLSIMESVVPVSDKGNYSVENEYGSINHTYHLDVVERSPHR  
 PILQAGLPANASTVVGGDVEFVCKVYSDAQPHIQWIKHVEKNGSKYGPDGLPYLKVLAAGVNTTDKEIE  
 VLYIRNVTFEDAGEYTCLAGNSIGISFHSAWLTVLPAPGREKEITASPDYLEIAIYCIGVFLIACMVVTV  
 ILCRMKNTTKKPDFSSQPAVHKLTKRIPLRRQVSAESSMNSNTPLVRITTRLSSADTPMLAGVSEYE  
 LPEDPKWEFPRDKLTLGKPLGEGCFQVVMMAEAVGIDKDKPEAVTVAVKMLKDDATEKDLSDLVSEM  
 MKMIGKHKNIINLLGACTQDGPLYVIVEYASKGNLREYLRARRPPGMEYSYDINRVPEEQMTFKDLVST  
 YQLARGMEYLAQKCIHRDLAARNVLTENNVMKIADFLARDINNDIYKTTNGRLPVKWMPEALFD  
 RYVYTHQSDVWSFGVLMWEIFTLGGSPYPGIPVEELFKLLKEGHRMDK PANCTNEL YMMMRDCWHAVPSQR  
 PTFKQLVEDLDRILTLTNEEYLDLSQPLEQYSPSPDTRSSCSSGDDSVFSPDPMPYEPCLPQYPHING  
 SVKT

TRTRPLE - GFP Tag - V

**Restriction Sites:** AscI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000141

**ORF Size:** 2112 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](mailto: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\\_000141.2](#), [NP\\_000132.1](#)

**RefSeq Size:** 4587 bp

**RefSeq ORF:** 2466 bp

**Locus ID:** 2263

**UniProt ID:** [P21802](#)

**Cytogenetics:** 10q26.13

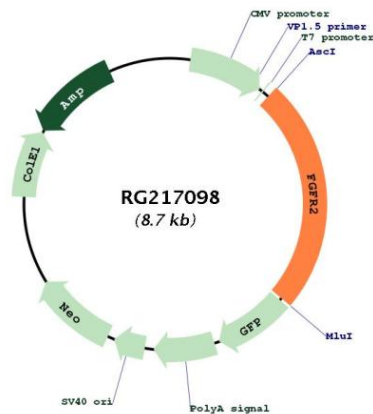
**Domains:** pkinase, TyrKc, S\_TKc, ig, IGc2, IG

**Protein Families:** Druggable Genome, Protein Kinase, Secreted Protein, Transmembrane

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

**Gene Summary:**

The protein encoded by this gene is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein consists 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 is a high-affinity receptor for acidic, basic and/or keratinocyte growth factor, depending on the isoform. Mutations in this gene are associated with Crouzon syndrome, Pfeiffer syndrome, Craniosynostosis, Apert syndrome, Jackson-Weiss syndrome, Beare-Stevenson cutis gyrata syndrome, Saethre-Chotzen syndrome, and syndromic craniosynostosis. Multiple alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jan 2009]

**Product images:**


Circular map for RG217098