

Product datasheet for **RC217098**

FGFR2 (NM_000141) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGFR2 (NM_000141) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FGFR2
Synonyms:	BBDS; BEK; BFR-1; CD332; CEK3; CFD1; ECT1; JWS; K-SAM; KGFR; TK14; TK25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217098 representing NM_000141
 Red=Cloning site Blue=ORF Green=Tags(s)

CTATAGGGCGGCCGGGAATTCGTCTGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC**GGCGC**
GCCC

ATGGTCAGCTGGGGTCGTTTCATCTGCCTGGTCGTGGTACCATGGCAACCTTGTCCCTGGCCCGGCCCT
 CCTTCAGTTTAGTTGAGGATACCCATTAGAGCCAGAAGAGCCACCAACCAAATACCAAATCTCTCAACC
 AGAAGTGTACGTGGCTGCGCCAGGGGAGTCGCTAGAGGTGCGCTGCCTGTTGAAAGATGCCGCCGTGATC
 AGTTGGACTAAGGATGGGGTGCCTTGGGGCCCAACAATAGGACAGTGCTTATTGGGGAGTACTTGCAGA
 TAAAGGGCGCCACGCCTAGAGACTCCGGCTCTATGCTTGTACTGCCAGTAGGACTGTAGACAGTAAAC
 TTGGTACTTCATGGTGAATGTCACAGATGCCATCTCATCCGGAGATGATGAGGATGACACCGATGGTGCG
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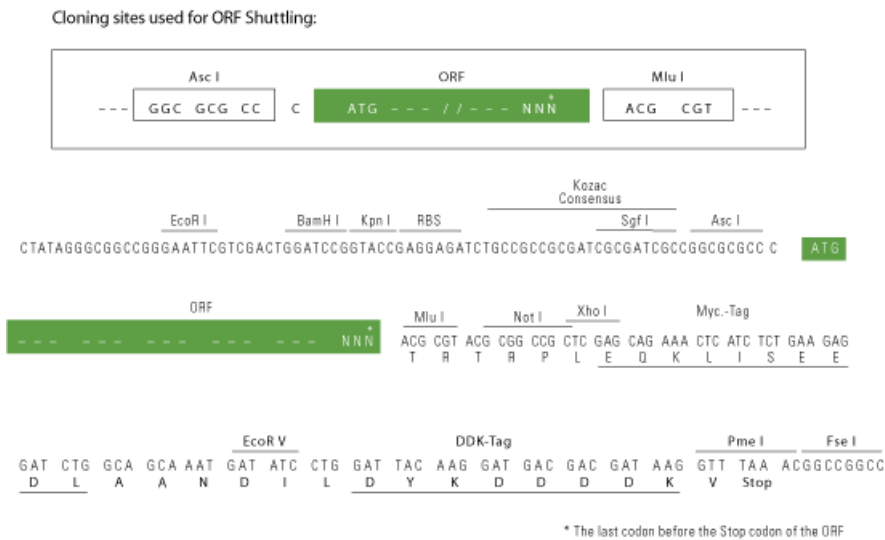
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217098 representing NM_000141
Red=Cloning site Green=Tags(s)

MVSWGRFICLVVVTMATLSLARPSFLVEDTTLEPEEPPTYQISQPEVYVAAPGESLEVRCLLKDAAVI
SWTKDGVHLGPNRRTLIGEYLQIKGATPRDGLYACTASRTVDSETWYFMVNVTDAISSGDEDDTDGA
EDFVSENSNNKRAPYWTNTEKMEKRLHAVPAANTVKFRCPAGGNPMPMTMRWLKNGKEFKQEHRIGGYKVR
NQHWSLIMESVVP SDKGNYTCVVENEYGSINHTYHLDVVERSHPHPILQAGLPANASTVVGGDVEFVCKV
YSDAQPHIQWIKHVEKNGSKYGPDGLPYLKVLKAAGVNTDKEIEVLYIRNVTFEDAGEYTCLAGNSIGI
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RIPLRRQVTVSAESSSSMNSNTPLVRITTRLSTADTPMLAGVSEYELPEDPKWEFPRDKLTLGKPLGEG
CFGQVVM AEAVGIDKDKPKEAVTVAVKMLKDDATEKDLSDLVSEMEMMKMIGKHKNIINLLGACTQDGPL
YVIVEYASKGNLREYLRARRPPGMEYSYDINRVPEEQMTFKDLVSCYQLARGMEYLASQKCIHRDLAAR
NVLVTENVMKIADFG LARDINNIDYYKTTNGRLPVKWM APEALFDRVYTHQSDVWSFGVLMWEIFTLG
GSPYPGIPVEELFKLLKEGHRMDKPANCTNELYMMMRDCWHAVPSQRPTFKQLVEDLDRILTLTTNEEYL
DLSQPLEQYSPSPDTRSSCSSGDDSVFSPDPMPYEPCLPQYPHINGSVKT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: AscI-MluI

Cloning Scheme:


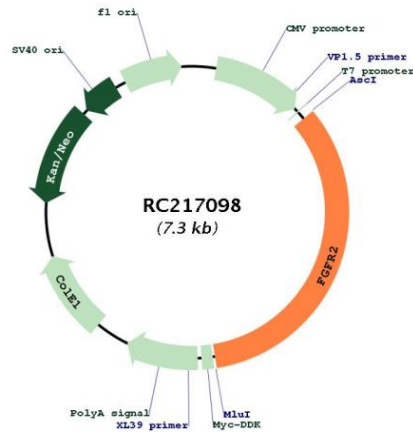
ACCN: NM_000141

ORF Size: 2463 bp

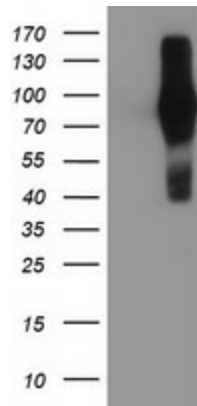
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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](#)

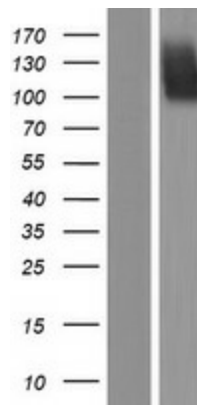
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">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_000141.5
RefSeq Size:	4654 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
MW:	92.5 kDa
Gene Summary:	<p>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]</p>

Product images:


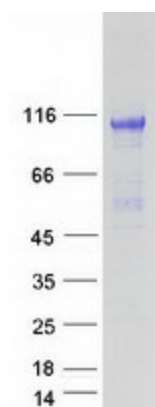
Circular map for RC217098



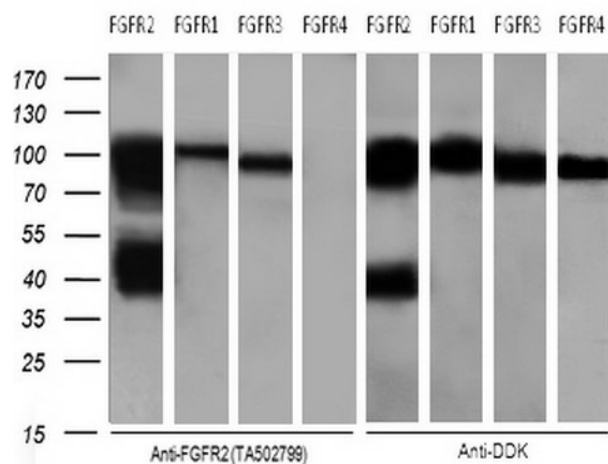
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FGFR2 (Cat# RC217098, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FGFR2 (Cat# [TA502799]). Positive lysates [LY400050] (100ug) and [LC400050] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400050]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217098 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FGFR2 protein (Cat# [TP317098]). The protein was produced from HEK293T cells transfected with FGFR2 cDNA clone (Cat# RC217098) using MegaTran 2.0 (Cat# [TT210002]).



Cross-Reactivity of anti-FGFR2 (Cat# [TA502799]) with FGFR1 and FGFR3, not with FGFR4. HEK293T cells were transfected with FGFR2 (Cat# RC217098), FGFR1 (Cat# [RC202080]), FGFR3 (Cat# [RC215533]), FGFR4 (Cat# [RC204230]) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FGFR2 (Cat# [TA502799]) (1:500) and anti-DDK (Cat# TA50011, 1:2000), respectively.