

## Product datasheet for **RC402575**

### **FGFR4 (NM\_002011) Human Mutant ORF Clone**

#### **Product data:**

Product Type:	Mutant ORF Clones
Product Name:	FGFR4 (NM_002011) Human Mutant ORF Clone
Mutation Description:	G388R
Affected Codon#:	388
Affected NT#:	1162
Nucleotide Mutation:	FGFR4 Mutant (G388R), Myc-DDK-tagged ORF clone of Homo sapiens fibroblast growth factor receptor 4 (FGFR4), transcript variant 1 as transfection-ready DNA
Effect:	Cancer, accelerated progression, association with
Symbol:	FGFR4
Synonyms:	CD334; JTK2; TKF
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_002011
ORF Size:	2406 bp
Restriction Sites:	Sgfl-NotI

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**ORF Nucleotide  
Sequence:**

>RC402575 representing NM\_002011  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCGGCTGCTGCTGGCCCTGTTGGGGTCTGCTGAGTGTGCCTGGCCTCCAGTCTTGTCCTGGAGG  
 CCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAGCAAGAGCAGGAGCTGACAGT  
 AGCCCTTGGGCAGCCTGTGCGTCTGTGCTGTGGCGGGCTGAGCGTGGTGGCCACTGGTACAAGGAGGGC  
 AGTCGCTGGCACCTGCTGGCCGTGTACGGGGTGGAGGGGCCCTAGAGATTGCCAGCTTCTACCTG  
 AGGATGCTGGCCGCTACCTCTGCCTGGCAGGAGCTCCATGATCGTCTGCAGAATCTCACCTTGATTAC  
 AGGTGACTCCTTGACCTCCAGCAACGATGATGAGGACCCCAAGTCCCATAGGGACCCCTCGAATAGGCAC  
 AGTTACCCCCAGCAAGCACCTACTGGACACACCCCGAGCGATGGAGAAGAACTGCATGCAGTACCTG  
 CGGGGAACACCGTCAAGTTCGCTGTCCAGCTGCAGGCAACCCCGACCCACCATCCGCTGGCTTAAGGA  
 TGGACAGGCCTTTCATGGGGAGAACCGATTGGAGGCATTCGGCTGCGCCATCAGCACTGGAGTCTCGTG  
 ATGGAGAGCGTGGTGCCTCGGACCGCGGCACATACACCTGCCTGGTAGAGAAGCTGTGGGCAGCATCC  
 GCTATAACTACCTGCTAGATGTGCTGGAGCGGTCCCGCACCGGCCATCCTGCAGGCCGGGCTCCCGGC  
 CAACACCACAGCCGTGGTGGGCAGCGAGTGGAGCTGCTGTGCAAGGTGTACAGCGATGCCAGCCCCAC  
 ATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGTTTCCCTATGTGCAAG  
 TCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCTGTACCTGCGGAACGTGTGAGCCGAGGA  
 CGCAGGCGAGTACCTGCCTCGCAGGCAATTCATCGGCCTCTCCTACCAGTCTGCCTGGCTCACGGTG  
 CTGCCAGAGGAGGACCCACATGGACCGCAGCAGCGCCGAGGCCAGGTATACGGACATCATCTGTACG  
 CGTCGGGCTCCCTGGCCTTGGCTGTGCTCCTGCTGCTGGCCAGGCTGTATCGAGGGCAGGCGCTCCACGG  
 CCGGCACCCCCCGCCCGCCGCACTGTGCAGAAGCTCTCCCGCTTCCCTCTGGCCGACAGTTCTCCCTG  
 GAGTCAGGCTCTTCCGGCAAGTCAAGCTCATCCCTGGTACGAGGCGTGCCTCTCTCCTCCAGCGCCCCG  
 CCTTGCTCGCGGCTCGTGAGTCTAGATCTACCTCTCGACCCACTATGGGAGTTCCTCCGGGACAGGCT  
 GGTGCTTGGGAAGCCCTAGGCGAGGGCTGCTTGGCCAGGTAGTACGTGCAGAGGCTTTGGCATGGAC  
 CCTGCCCGGCTGACCAAGCCAGCACTGTGGCCGTCAAGATGCTCAAAGACAACGCTCTGACAAGGACC  
 TGGCCGACCTGGTCTCGGAGATGGAGGTGATGAAGCTGATCGGCCGACACAAGAATCATCAACCTGCT  
 TGGTGTCTGCACCCAGGAAGGGCCCTGTACGTGATCGTGGAGTGCGCCCAAGGAAACCTGCGGGAG  
 TTCCTGCGGGCCCGCGCCCCCAGGCCCGACCTCAGCCCCGACGGTCTCGGAGCAGTGAAGGGCCGC  
 TCTCCTTCCAGTCTGGTCTCCTGCGCTACCAAGTGGCCCGAGGCATGCAGTATCTGGAGTCCCGAA  
 GTGTATCCACCGGACCTGGCTGCCCGCAATGTGCTGGTGAAGTGAAGATTGCTGAC  
 TTTGGGCTGGCCCGCGGCGTCCACCACATTGACTACTATAAGAAAACCAGCAACGGCCGCTGCCTGTGA  
 AGTGGATGGCGCCGAGGCTTGTGTTGACCGGGTGTACACACACCAGAGTGACGTGTGGTCTTTGGGAT  
 CCTGCTATGGGAGATCTTACCCCTCGGGGGTCCCCGTATCCTGGCATCCCGTGGAGGAGCTGTTCTCG  
 CTGCTGCGGGAGGACATCGGATGGACCGACCCCACTGCCCCCAGAGCTGTACGGGCTGATGCGTG  
 AGTGCTGGCACGCAGCGCCCTCCAGAGGCTACCTTCAAGCAGCTGGTGGAGGCGCTGGACAAGGTCT  
 GCTGGCCGTCTCTGAGGAGTACCTCGACCTCCGCTGACCTTCGGACCTATTCCCCCTCTGGTGGGGAC  
 GCCAGCAGACCTGCTCCTCCAGCGATTCTGTCTTCAAGCAGACCCCTGCCATTGGGATCCAGCTCT  
 TCCCTTCGGGTCTGGGTGACAGCA

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGTTTAA

**Protein Sequence:**

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>RC402575 representing NM_002011
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Red=Cloning site Green=Tags(s)

MRLLLALLGVLLSVPGPPVLSLEASEEVELEPLCLAPSLEQQEQELTVALGQPVRLCCGRAERGHHWYKEG  
 SRLAPAGRVRGWRGRLEIASFLPEDAGRYLCLARGSMIVLQNLTLITGDSLTSNNDEDPKSHRDPNSNRH  
 SYPQQAPYWTHPQRMKKLHAVPAGNTVKFRCPAAGNPTPTIRWLKDGQAFHGENRIGGIRLRHQHWSLV  
 MESVVPSSDRGTYTCLVENAVGSIRYNLLDVLERSPHRPILQAGLPANTTAVVGSDEVLLCKVYSDAQPH  
 IQWLKHTVINGSSFGADGFPYVQVLKTADINSSEVEVL YLRNVSAEDAGEYTCLAGNSIGLSYQSAWLT  
 LPEEDPTWTAAPEARYTDIILYASGSLALAVLLLLARLYRGQALHGRHPRPPATVQKLSRFPLARQFSL  
 ESGSSGKSSSSLVRGVRLSSSGPALLAGLVSLDPLDPLWEFPRDRLVLGKPLGEGCGQVVRAEAFGMD  
 PARPDQASTVAVKMLKDNASDKDLADLVSEMEVMKLI GRHKNIINLLGVCTQEGPLYVIVECAAKGNLRE  
 FLRARRPPGPDLSPDGPRSSSEGPLSFPVLVSCAQVARGMQYLESRKCIHRDLAARNVLVTEDNMKIID  
 FGLARGVHHIDYKKTNGRLPVKMWAAEALFDRVYTHQSDVWSFGILLWEIFTLGGSPYPGIPVEELFSL  
 LREGHRMDRPPHCPEPLYGLMECEWHAAPLSQRPTFKQLVEALDKVLLAVSEEYDLRLTFGPYSPSGGD  
 ASSTCSSSDSVFSDHPLPLGSSSFPFGSGVQT

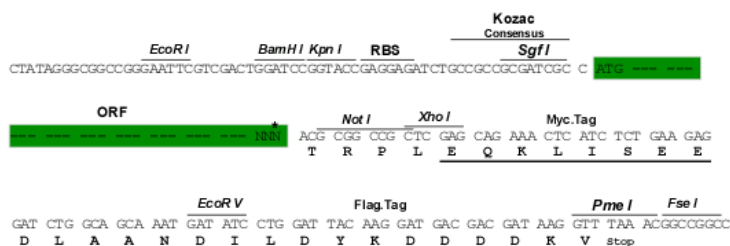
SGPTRRRL EOKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-NotI

### Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORE

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NP_002002</a>
<b>RefSeq Size:</b>	2406 bp
<b>RefSeq ORF:</b>	2409 bp
<b>Locus ID:</b>	2264
<b>Cytogenetics:</b>	5q35.2
<b>Domains:</b>	pkinase, TyrKc, S_TKc, ig, IGc2, IG
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Endocytosis, MAPK signaling pathway, Regulation of actin cytoskeleton
<b>MW:</b>	88.2 kDa
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a tyrosine kinase and cell surface receptor for fibroblast growth factors. The encoded protein is involved in the regulation of several pathways, including cell proliferation, cell differentiation, cell migration, lipid metabolism, bile acid biosynthesis, vitamin D metabolism, glucose uptake, and phosphate homeostasis. This 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 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. [provided by RefSeq, Aug 2017]</p>