

## Product datasheet for **RC403417**

### **FGFR1 (NM\_023110) Human Mutant ORF Clone**

#### **Product data:**

<b>Product Type:</b>	Mutant ORF Clones
<b>Product Name:</b>	FGFR1 (NM_023110) Human Mutant ORF Clone
<b>Mutation Description:</b>	Y585X
<b>Affected Codon#:</b>	585
<b>Affected NT#:</b>	1755
<b>Nucleotide Mutation:</b>	FGFR1 Mutant (Y585X), Myc-DDK-tagged ORF clone of Homo sapiens fibroblast growth factor receptor 1 (FGFR1), transcript variant 1 as transfection-ready DNA
<b>Effect:</b>	Kallmann syndrome
<b>Symbol:</b>	FGFR1
<b>Synonyms:</b>	bFGF-R-1; BFGFR; CD331; CEK; ECCL; FGFBR; FGFR-1; FLG; FLT-2; FLT2; HBGFR; HH2; HRTFDS; KAL2; N-SAM; OGD
<b>E. coli Selection:</b>	Kanamycin (25 ug/mL)
<b>Mammalian Cell Selection:</b>	Neomycin
<b>Vector:</b>	pCMV6-Entry (PS100001)
<b>Tag:</b>	Myc-DDK
<b>ACCN:</b>	NM_023110
<b>ORF Size:</b>	1752 bp
<b>Restriction Sites:</b>	Sgfl-Mlul



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**ORF Nucleotide Sequence:**

>RC403417 representing NM\_023110  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTGGAGCTGGAAGTGCCTCCTCTTCTGGGCTGTGCTGGTACAGCCACTCTGCACCCTAGGCCGT  
 CCCCGACCTTGCTGAACAAGCCAGCCCTGGGGAGCCCTGTGGAAGTGGAGTCTTCCTGGTCCACCC  
 CGGTGACCTGCTGCAGCTTCGCTGTGCGCTGCGGGACGATGTGCAGAGCATCAACTGGCTGCGGGACGGG  
 GTGCAGCTGGCGGAAAGCAACCCGACCCGCATCACAGGGGAGGAGGTGGAGTGCAGGACTCCGTGCCCG  
 CAGACTCCGGCCTCTATGCTTGCCTAACAGCAGCCCTCGGGCAGTGACACCCTACTTCTCCGTCAA  
 TGTTTCAGATGCTCTCCCTCCTCGGAGGATGATGATGATGATGACTCCTCTTCAGAGGAGAAAGAA  
 ACAGATAACACCAACCAACCGTATGCCCGTAGCTCCATATTGGACATCCCAGAAAAGATGGAAAAGA  
 AATTGCATGCAGTGCCGGCTGCAAGACAGTGAAGTTCAAATGCCCTTCCAGTGGGACCCCAACCCAC  
 ACTGCGCTGGTTGAAAAATGGCAAAGAATTCAAACCTGACCACAGAATTGGAGGCTACAAGTCCGTTAT  
 GCCACCTGGAGCATCATAATGGACTCTGTGGTGCCTCTGACAAGGGCAACTACACCTGCATTGTGGAGA  
 ATGAGTACGGCAGCATCAACCACACATACCAGCTGGATGTGCTGGAGCGGTCCCTCACCGGCCATCCT  
 GCAAGCAGGGTTGCCCGCAACAAAACAGTGGCCCTGGGTAGCAACGTGGAGTTCATGTGTAAGGTGAC  
 AGTGACCCGACGGCCACATCCAGTGGCTAAAGCACATCGAGGTGAATGGGAGCAAGATTGGCCAGACA  
 ACCTGCCTTATGTCCAGATCTTGAAGACTGCTGGAGTTAATACCACCGACAAAGAGATGGAGGTGCTTCA  
 CTTAAGAAATGTCTCTTTGAGGACGCAGGGGAGTACGTGCTTGGCGGTAACCTATCGGACTCTCC  
 CATCAGTGCATGGTTGACCGTCTGGAAGCCCTGGAAGAGAGGCCGGCAGTGCATGACCTCGCCCTGT  
 ACCTGGAGATCATCATCTATTGCACAGGGCCCTCCTCATCTCCTGCATGGTGGGGTCCGTCCGTCTA  
 CAAGATGAAGAGTGGTACCAAGAAGAGTACTTCCACAGCCAGATGGCTGTGCACAAGCTGGCCAAGAGC  
 ATCCCTCTGCGCAGACAGGTAACAGTGTCTGCTGACTCCAGTGCATCCATGAACTCTGGGGTTCTCTGG  
 TTCGCCATCACGGCTCTCCTCCAGTGGGACTCCATGCTAGCAGGGTCTCTGAGTATGAGCTTCCCGA  
 AGACCCTCGTGGGAGCTGCCTCGGGACAGACTGGTCTTAGGCAAACCCCTGGGAGAGGGCTGCTTTGGG  
 CAGGTGGTGTGGCAGAGGCTATCGGGCTGGACAAGGACAAACCAACCGTGTGACCAAAGTGGCTGTGA  
 AGATGTTGAAGTCGGACGCAACAGAGAAAGACTTGTGAGACTGATCTCAGAAATGGAGATGATGAAGT  
 GATCGGAAGCATAAGAAATATCATCAACTGCTGGGGCTGCACGCAGGATGGTCCCTGTATGTCATC  
 GTGGAGTATGCCTCAAGGGCAACCTGCGGGAGTACCTGCAGGCCGGAGGCCCCAGGGCTGGAATACT  
 GC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

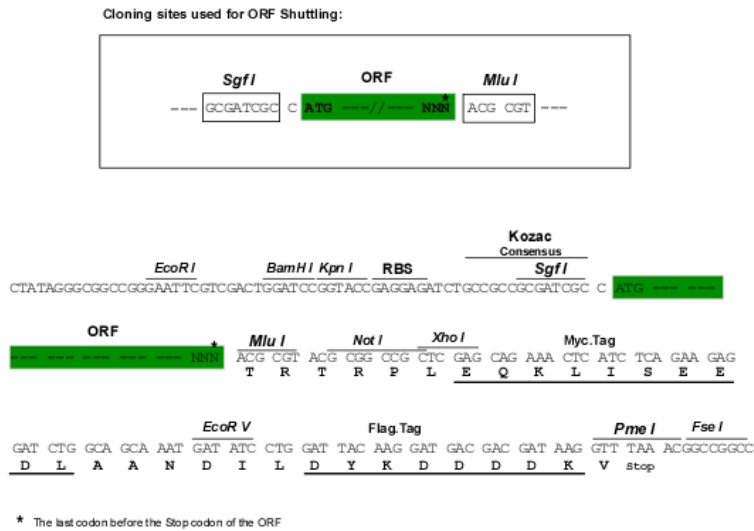
>RC403417 representing NM\_023110  
 Red=Cloning site Green=Tags(s)

MWSWKCLLFWAVLVTATLCTARPSPTLPEQAQPWGAPVEVESFLVHPGDLLQLRCRLRDDVQVINWLRDG  
 VQLAESNRTRITGEEVEVQDSSVPADSLYACVTSPPSGSDTTYFSVNVSDALPSEDDDDDDSSSEKE  
 TDNTKPNRMPVAPYWTSPEKMEKLLHAVPAAKTVKFKPSSGTPNPTLRWLKNGKEFKPDHRIGGYKVRY  
 ATWSIIMDSVVPDSDKGNVYTCIVENEYGSINHTYQLDVVERSPHRPILQAGLPANKTVALGSNVEFMCKVY  
 SDPQPHIQWLKHIEVNGSKIGPDLNPPYQILKTAGVNTTDKEMEVLHLRNVSFEDAGEYTCLAGNSIGLS  
 HHSAWLTVLEALEERPAMVMTSPLYLEIIYCTGAFLISCMVGSIVYKMKSGTKKSDFHSMQMAVHKLAKS  
 IPLRRQVTVSADSSAMNSGVLLVVRPSRLSSSGTPMLAGVSEYELPEDPRWELPRDRLVLGKPLGEGCFG  
 QVVLAEAIGLDKDKPNRVTKVAVKMLKSDATEKDLSDLISEMEMMKMIGKHKNIINLLGACTQDGPLYVI  
 VEYASKGNLREYLQARRPPGLEYC

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**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).

RefSeq:	<a href="#">NP_075598</a>
RefSeq Size:	1752 bp
RefSeq ORF:	2469 bp
Locus ID:	2260
Cytogenetics:	8p11.23
Domains:	ig, IGc2, IG
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Adherens junction, MAPK signaling pathway, Melanoma, Pathways in cancer, Prostate cancer, Regulation of actin cytoskeleton
MW:	64.2 kDa
Gene Summary:	<p>The protein encoded by this gene is a member of the fibroblast growth factor receptor (FGFR) 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 binds both acidic and basic fibroblast growth factors and is involved in limb induction. Mutations in this gene have been associated with Pfeiffer syndrome, Jackson-Weiss syndrome, Antley-Bixler syndrome, osteoglophonic dysplasia, and autosomal dominant Kallmann syndrome 2. Chromosomal aberrations involving this gene are associated with stem cell myeloproliferative disorder and stem cell leukemia lymphoma syndrome. Alternatively spliced variants which encode different protein isoforms have been described; however, not all variants have been fully characterized. [provided by RefSeq, Jul 2008]</p>