

## Product datasheet for **MR225124**

### **Fgfr2 (NM\_010207) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Fgfr2 (NM_010207) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Fgfr2
Synonyms:	AU043015; AW556123; Bek; Fgfr-2; Fgfr-7; Fgfr7; KGFR; KGFRTr; sv5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR225124 representing NM\_010207  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGGATTACCGTCCACGTGGAGATATGGAAGAGGACCAGGGATTGGCACTGTGACCATGGTCAGCTGGG  
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 TGAGGATACCACTTTAGAACAGAGAGCCACCAACAAATACCAATCTCCCAACCAGAAGCGTACGTG  
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 ACCTAGAGACTCCGGCTCTATGCTTGTACTGCAGCTAGGACGGTAGACAGTGAACTTGGTACTTCATG  
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 GTGAGAACAGGAGCAACCAGAGAGCACCGTACTGGACCAACCCGAGAAGATGGAGAAGCGGCTCCACGC  
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 CAGTTGGTCAAGACTTGGATCGAATTCGACTCTCACAAACCAATGAGGAATACTTGGATCTCACCCAGC  
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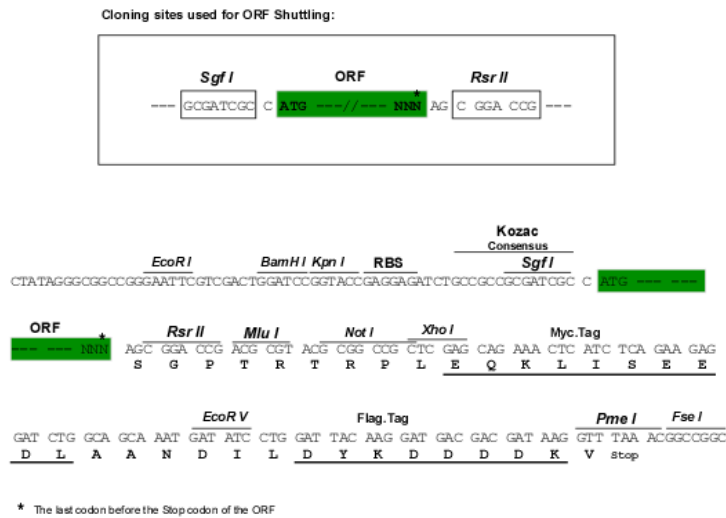
**Protein Sequence:** >MR225124 representing NM\_010207  
Red=Cloning site Green=Tags(s)

MGLPSTWRYGRGPGIGTVMVSWGRFICLVLTMATLSLARPSFSLVEDTTLEPEEPPTYQISQPEAYV  
VAPGESLELQCMLKDAAVISWTKDGVHLGPNRTVLIGEYLQIKGATPRDSGLYACTAARTVDSETWYFM  
VNVTDAISSGDDEDDTDSSEDDVSENRSNQRAPYWTNTEKMEKRLHAVPAANTVKFRCPAGGNPTPTMRW  
LKNGKEFKQEHRIIGGYKVRNQHWSLIMESVVP SDKGNYTCLVENEYGSINHTYHLDVVERSHPHRPILQAG  
LPANASTVVGDDVEFVCKVYSDAQPHIQWIKHVEKNGSKYGPDGLPYLKV LKAAGVNTT DKEIEVLYIRN  
VTFEDAGEYTCLAGNSIGISFHSAWLTVLPAPVREKEITASPDYLEIAIYICIGVFLIACMVVTVIFCRMK  
TTTTKPDFSSQPAVHKLTKRIPLRRQVTVSAESSSSMNSNTPLVRITRRLSSTADTPMLAGVSEYELPED  
PKWEFPRDKLTLGKPLGEGCFGQVMAEAVGIDKDKPKEAVTVAVKMLKDDATEKDLSLVSEMEMMKMI  
GKHKNIINLLGACTQDGPLYVIVEYASKGNLREYL RARRPPGMEYSYDINRVPEEQMTFKDLVSCTYQLA  
RGMEYLASQKCIHRDLAARNVLVTENVMKIADFLARDINNIDYKKTNGRLPVKWM APEALFDRVYT  
HQSDVWSFGVLMWEIFTLGGSPYGPVVEELFKLLKEGHRMDKPTNCTNELYMMMRDCWHAVPSQRPTFK  
QLVEDLDRILTLTTNEEYLDLTQPLEQYSPSYDTRSSCSSGDDSVFSPDPMPYEPCLPQYPHINGSVKT

SGP<sup>TRTRPLEQKLI SEEDLAANDILDYKDDDDKV</sup>

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9009\\_e10.zip](https://cdn.origene.com/chromatograms/mm9009_e10.zip)

**Restriction Sites:** Sgfl-RsrII

**Cloning Scheme:**


**ACCN:** NM\_010207

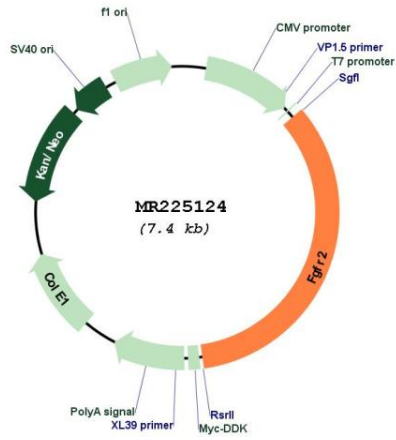
**ORF Size:** 2520 bp

**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](#)

<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>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_010207.2</a> , <a href="#">NP_034337.2</a>
<b>RefSeq Size:</b>	5223 bp
<b>RefSeq ORF:</b>	2523 bp
<b>Locus ID:</b>	14183
<b>UniProt ID:</b>	<a href="#">P21803</a>
<b>Cytogenetics:</b>	7 F3
<b>MW:</b>	94.6 kDa
<b>Gene Summary:</b>	Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays an essential role in the regulation of cell proliferation, differentiation, migration and apoptosis, and in the regulation of embryonic development. Required for normal embryonic patterning, trophoblast function, limb bud development, lung morphogenesis, osteogenesis and skin development. Plays an essential role in the regulation of osteoblast differentiation, proliferation and apoptosis, and is required for normal skeleton development. Promotes cell proliferation in keratinocytes and immature osteoblasts, but promotes apoptosis in differentiated osteoblasts. Phosphorylates PLCG1, FRS2 and PAK4. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. Phosphorylation of FRS2 triggers recruitment of GRB2, GAB1, PIK3R1 and SOS1, and mediates activation of RAS, MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. FGFR2 signaling is down-regulated by ubiquitination, internalization and degradation. Mutations that lead to constitutive kinase activation or impair normal FGFR2 maturation, internalization and degradation lead to aberrant signaling. Over-expressed FGFR2 promotes activation of STAT1.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225124