

Product datasheet for **MG210178**

Fgfr2 (BC091652) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fgfr2 (BC091652) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fgfr2
Synonyms:	KGFRTTr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG210178 representing BC091652
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCAGCTGGGGCGCTTCATCTGCCTGGTCTTGGTCACCATGGCAACCTTGTCCCTGGCCCGCCCT
 CCTTCAGTTTAGTTGAGGATACCACTTTAGAACCAGAAGGAGCACCGTACTGGACCAACACCGAGAAGAT
 GGAGAAGCGGCTCCACGCTGTCCCTGCCGCCAACACTGTGAAGTTCGGCTGTCCGGCTGGGGGAATCCA
 ACGCCACAATGAGGTGGTTAAAAACGGGAAGGAGTTTAAGCAGGAGCATCGCATTGGAGGCTATAAGG
 TACGAAACCAGCACTGGAGCCTTATTATGGAAAGTGTGGTCCCCTCAGACAAAGGCAACTACACCTGCCT
 GGTGGAGAATGAATACGGGTCCATCAACCACACCTACCACCTCGATGTCGTTGAACGGTCACCACACCGG
 CCCATCCTCAAGCTGGACTGCCTGCAATGCCTCCACGGTGGTCGGAGGGGATGTGGAGTTTGTCTGCA
 AGGTTTACAGCGATGCCAGCCCATCCAGTGGATCAAGCACGTGGAAAAGAACGGCAGTAAATACGG
 GCCTGATGGGCTGCCCTACCTCAAGTCTGAAGCACTCGGGATAAATAGCTCCAATGCAGAAGTCTG
 GCTCTGTTCAATGTGACGGAGATGGATGCTGGGAATATATATGTAAAGTCTCCAATTATATAGGGCAGG
 CCAACCGTCTGCCTGGCTCACTGTCCTGCCAAACAGCAAGCGCTGTGAGAGAGAAGGAGATCACGGC
 TCCCCAGATTATCTGGAGATAGCTATTTACTGCATAGGGGTCTTCTTAATCGCCTGCATGGTGGTGACA
 GTCATCTTTTGGCGAATGAAGACCACGACCAAGAAGCCAGACTTCAGCAGCCAGCCAGCTGTGCACAAGC
 TGACCAAGCGCATCCCCGCGGAGACAGGTAACAGTTTCGGCCGAGTCCAGCTCCTCCATGAACTCCAA
 CACCCCGCTGGTGGGATAACAACCGCTGTCTCAACAGCGGACACCCGATGCTAGCAGGGGTCTCC
 GAGTATGAGTTGCCAGAGGATCCAAAGTGGGAATCCCCAGAGATAAGCTGACGCTGGGCAAAACCCCTGG
 GGAAGTTGCTTCGGGCAAGTAGTCAATGGTGAAGCAGTGGGAATCGATAAAGACAAACCCAAGGAGGC
 GGTACCGTGGCAGTGAAGATGTTGAAAGATGATGCCACAGAGAAGGACCTGTCTGATCTGGTATCAGAG
 ATGGAGATGATGAAGATGATTGGGAAACATAAGAACATTATCAACCTCCTGGGGCCTGCACGCAGGATG
 GACCTCTCTACGTATAGTTGAATATGCATCGAAAGGCAACCTCCGGGAATACCTCCGAGCCCGGAGGCC
 ACCTGGCATGGAGTACTCCTATGACATTAACCGTGTCCCCGAGGAGCAGATGACCTTCAAGGACTTGGTG
 TCCTGCACCTACCAGCTGGCTAGAGGCATGGAGTACTTGGCTTCCAAAAATGTATCCATCGAGATTTGG
 CTGCCAGAAACGTGTTGGTAACAGAAAACAATGTGATGAAGATAGCAGACTTTGGCCTGGCCAGGGATAT
 CAACAACATAGACTACTATAAAAAGACCACAAATGGGCGACTTCCAGTCAAGTGGATGGCTCCTGAAGCC
 CTTTTTGATAGAGTTTACTCATCAGAGCGATGTCTGGTCTTCGGGGTGTAAATGTGGGAGATCTTTA
 CTTTAGGGGGCTACCCTACCCAGGGATTCCCGTGGAGGAACTTTTTAAGCTGCTCAAAGAGGGACACAG
 GATGGACAAGCCACCAACTGCACCAATGAACTGTACATGATGATGAGGGATTGTGGCATGCTGTACCC
 TCACAGAGACCCACATCAAGCAGTTGGTCAAGACTTGGATCGAATTCTGACTCTCACAAACCAATGAGG
 AACTTTGGATCTCACCCAGCCTCTCGAACAGTATTCTCCTAGTTACCCCGACACAAGGAGCTCTTGTT
 TTCAGGGGACGATTCTGTGTTTTCTCCAGACCCCATGCCTTATGAACCTGTCTGCCTCAGTATCCACAC
 ATAAACGGCAGTGTAAAAACA

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAA

Protein Sequence: >MG210178 representing BC091652
 Red=Cloning site Green=Tags(s)

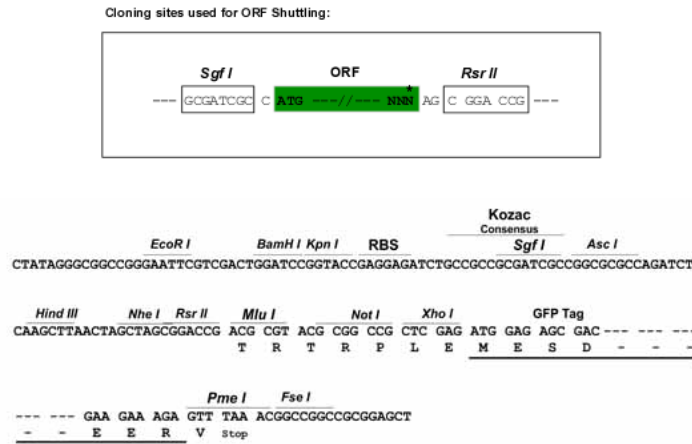
MVSWGRFICLVLTMATLSLARPSFSLVEDTTLEPEGAPYWTNTEKMEKRLHAVPAANTVKFRCPAGGNP
 TPTMRWLKNGKEFKQEHRIIGGYKVRNQHWLSIMESVVPVSDKGNVCLVENEYGSINHTYHLDVVERSPHR
 PILQAGLPANASTVVGGDVEFVCKVYSDAQPHIQWIKHVEKNGSKYGPDGLPYLKVLKHSGINSSNAEVL
 ALFNVTMDAGEYICKVSNYIGQANQSAWLTVLPKQQAPVREKAITASPDYLEIAIYCIGVFLIACMVVT
 VIFCRMKTTHKKPDFSSQPAVHKLTKRIPLRRQVTVSAESSSSMNSNTPLVRITTRLSSADTPMLAGVS
 EYELPEDPKWEFPRDKLTLGKPLGEGCFGQVVM AEAVGIDKDKPKEAVTVAVKMLKDDATEKDLSDLVSE
 MEMMKMIGKHKNIIINLLGACTQDGPLYVIVEYASKGNLREYLRRRPPGMEYSYDINRVPEEQMTFKDLV
 SCTYQLARGMEYLASQKCIHRDLAARNVLTENNVMKIADFGIARDINNIDYKKTNGRLPVKWM APEA
 LFDVRYTHQSDVWSFGVLMWEIFTLGGSPYGPVVEELFKLLKEGHRMDKPTNCTNELYMMMRDCWHAVP
 SQRPTFKQLVEDLDRILTLTTNEEYLDLTQPLEQYSPSPDTRSSCSCSGDSDVSPDPMPYEPCLPQYPH
 INGSVKT

SGP^{TRRRLE} - GFP Tag - V

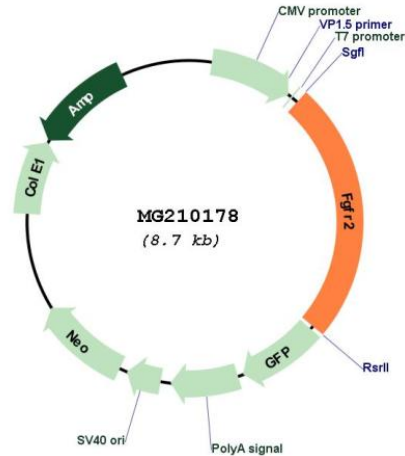
Restriction Sites:

SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: BC091652

ORF Size: 2123 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:

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: [BC091652](#)

RefSeq Size: 4271 bp

RefSeq ORF: 2123 bp

Locus ID: 14183

Cytogenetics: 7 F3

Gene Summary: 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]