

Product datasheet for **MG210769**

Fgfr4 (NM_008011) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fgfr4 (NM_008011) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fgfr4
Synonyms:	Fgfr-4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG210769 representing NM_008011
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGGCTGCTCTTGCCCTGTTGAGCATCTTTACAGGGACACCAGCTTTGTCCCTTGAGGCCTCTGAGG
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 GCAGCCTGTGAGGCTGTGCTGTGGGCGCACCGAGCGTGGTCGTCCTGGTACAAAGAGGGCAGCCGCTA
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 GCCGATACCTCTGCCTGGCCCGTGGCTCCATGACCGTCGTACACAATCTTACGTTGCTTATGGATGACTC
 CTTAACCTCCATCAGTAATGATGAAGACCCCAAGACACTCAGCAGCTCCTCGAGTGGTATGTCTACCCA
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 ACCTGCTCCTCCAGTGACTCGGTTTTAGCCACGACCCCTTGGCCCTCGAGCCAAGCCCTTCCCTTCT
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ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210769 representing NM_008011
Red=Cloning site Green=Tags(s)

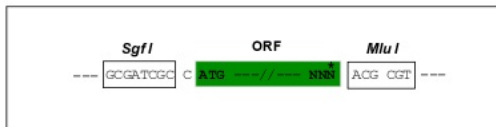
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TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



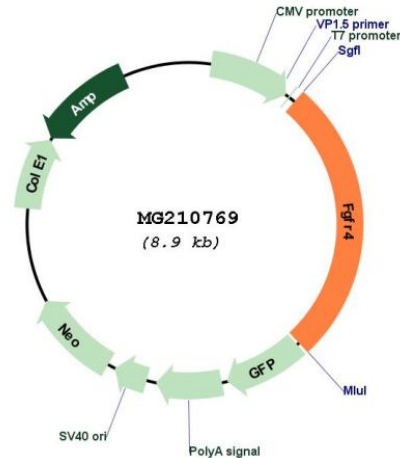
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          Kozac
          Consensus
          Sgf I   Asc I
      EcoR I   BamH I Kpn I   RBS
CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

      Hind III   Nhe I   Rsr II   Mlu I       Not I   Xho I       GFP Tag
CAAGCTTAAGTACTAGCTAGCGGACCG   ACG CGT   ACG CGG   CCG CTC GAG   ATG GAG AGC GAC --- ---
                                   T   R   T   R   P   L   E   M   E   S   D   -   -   -

          Pme I   Fse I
--- --- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT
- - - E E R V Stop
    
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Plasmid Map:



ACCN: NM_008011

ORF Size: 2397 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: [NM_008011.2](#), [NP_032037.2](#)

RefSeq Size: 3146 bp

RefSeq ORF: 2400 bp

Locus ID: 14186

UniProt ID: [Q03142](#)

Cytogenetics: 13 29.8 cM

Gene Summary: Tyrosine-protein kinase that acts as cell-surface receptor for fibroblast growth factors and plays a role in the regulation of cell proliferation, differentiation and migration, and in regulation of lipid metabolism, bile acid biosynthesis, glucose uptake, vitamin D metabolism and phosphate homeostasis. Required for normal down-regulation of the expression of CYP7A1, the rate-limiting enzyme in bile acid synthesis, in response to FGF19. Phosphorylates PLCG1 and FRS2. 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. Promotes SRC-dependent phosphorylation of the matrix protease MMP14 and its lysosomal degradation. FGFR4 signaling is down-regulated by receptor internalization and degradation; MMP14 promotes internalization and degradation of FGFR4. Plays a role in postnatal lung development. May be involved in the development of skeletal muscle cell lineages. [UniProtKB/Swiss-Prot Function]