

Product datasheet for MR201152

Fgf1 (NM_010197) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Fgf1 (NM_010197) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Fgf1
Synonyms: Dffrx; Fam; Fgf-1; Fgfa
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201152 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGAAGGGGAGATCACAACCTTCGCAGCCCTGACCGAGAGGTTCAACCTGCCTCTAGGAACTACA
 AAAAGCCCAAAGTCTACTGCAGCAACGGGGCCACTTCTTGAGGATCCTTCTGATGGCACCGTGGA
 TGGGACAAGGGACAGGAGCGACCAGCACATTAGCTGCAGCTCAGTCCGAAAGTCCGGGCGAAGTGTAT
 ATAAAGGTACGGAGACCGCCAGTACTTGCCATGGACACCGAAGGGCTTTTATACGGCTCGCAGACAC
 CAAATGAGGAATGTCTGTTCTGAAAGGCTGGAAGAAAACCATTATAACACTTACACCTCAAGAAGCA
 TGGGAGAAGAAGTGGTTTGTGGCCTCAAGAAGAACGGGAGCTGAAGCGGGTCTCGGACTCACTAT
 GGCCAGAAAGCCATCTTGTCTGCCCTCCCGGTGTCTTCTGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR201152 protein sequence
 Red=Cloning site Green=Tags(s)

MAEGEITTF AAL TERFNLPLGNYKPKLLYCSNGGHFLRILPDGTV DGTDRSDQHIQLQLSAESAGEVY
 IKGTETGQYLAMDTEGLLYGSQTPNEECLFLERLEENHYNTYTSKKHAENWVGLKKNKSGCKRGPRTYH
 GQKAILFLPLPVSSD

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_010197

ORF Size: 468 bp

OTI Disclaimer: 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_010197.3](#), [NP_034327.1](#)

RefSeq Size: 3909 bp

RefSeq ORF: 468 bp

Locus ID: 14164

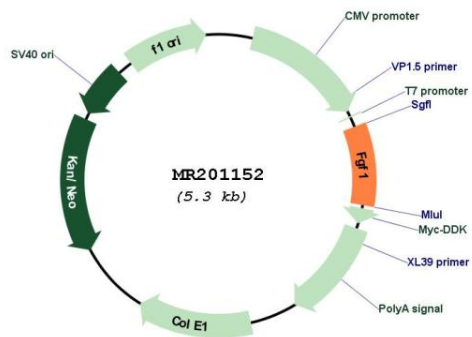
UniProt ID: [P61148](#)

Cytogenetics: 18 20.74 cM

MW: 17.4 kDa

Gene Summary: Plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation via sequential autophosphorylation on tyrosine residues which act as docking sites for interacting proteins, leading to the activation of several signaling cascades. Binds to integrin ITGAV:ITGB3. Its binding to integrin, subsequent ternary complex formation with integrin and FGFR1, and the recruitment of PTPN11 to the complex are essential for FGF1 signaling. Induces the phosphorylation and activation of FGFR1, FRS2, MAPK3/ERK1, MAPK1/ERK2 and AKT1. Can induce angiogenesis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201152