

## Product datasheet for RC217426

### FGF2 (NM\_002006) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	FGF2 (NM_002006) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FGF2
Synonyms:	BFGF; FGF-2; FGFB; HBGF-2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217426 representing NM_002006 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGGGTGTGGGGGTGGAGATGTAGAAGATGTGACGCCGGCCCGGGTGGCCAGATTAGCGGAC  
GCGGTGCCCGGTTGCAACGGGATCCCGGGCGCTGCAGCTTGGGAGGCGGCTCTCCCAGGCGCGTCC  
GCGGAGACACCCATCCGTGAACCCAGGTCGCGGGCCCGGCTCGCCGCGCACCAGGGCCGGCGGACA  
GAAGAGCGGCGAGCGGCTCGAGGCTGGGGACC GCGGGCGCGCGCTGCCGGCCGGGAGGCTGG  
GGGGCCGGGGCCGGGGCGTGCCTCGGAGCGGGTGGAGGCCGGGGCCGGGGCCGGGGACGGCGGCTCC  
CCGCGCGGCTCCAGCGGCTCGGGGATCCCGGCCGGCCCCGAGGACCATGGCAGCCGGGAGCATCACC  
ACGCTGCCCGCTTGCCCGAGGATGGCGGAGCGGCGCTTCCCGCCGGCCACTTCAAGGACCCCAAGC  
GGCTGTAAGCAAAAACGGGGGCTTCTTCTGCGCATCCACCCGACGGCCGAGTTGACGGGGTCCGGGA  
GAAGAGCGACCCTCACATCAAGCTACAACCTCAAGCAGAAGAGAGAGGAGTTGTGTCTATCAAAAGGAGTG  
TGTGCTAACCGTTACCTGGCTATGAAGGAAGATGGAAGATTACTGGCTTCTAAATGTGTTACGGATGAGT  
GTTTCTTTTTGAACGATTGGAATCTAATAACTACAATACTTACCGGTCAAGGAAATACACCAGTTGGTA  
TGTGGCACTGAAACGAACTGGGCAGTATAAACTGGATCCAAAACAGGACCTGGGCAGAAAGCTATACTT  
TTTCTTCCAATGTCTGCTAAGAGC

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC217426 representing NM\_002006  
Red=Cloning site Green=Tags(s)

MVGVGGGDVEDVTPRPGGCQISGRGARGCNGIPGAAWEAALPRRRPRRHPSVNPRSRRAAGSPRTRGRRT  
 EERPSGSRLGDRGRGRALPGGRLGGRGRGRAPERVGGRRGRGTAAPRAAPAARGSRPGPAGTMAAGSIT  
 TLPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLRIHDPGRVDGVREKSDPHIKLQLQAEERGVSISIKGV  
 CANRYLAMKEDGRLLASKCVTDECFERLESNNYNTYRSRKYTSWYVALKRTGQYKLGSKTGPQKAIL  
 FLPMSAKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2576\\_g03.zip](https://cdn.origene.com/chromatograms/mg2576_g03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002006

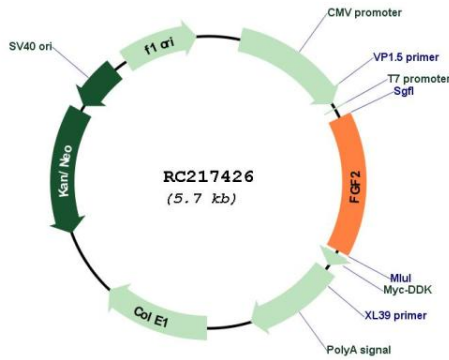
**ORF Size:** 864 bp

**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.

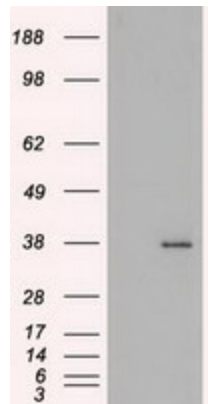
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_002006.5</a>
<b>RefSeq Size:</b>	6803 bp
<b>RefSeq ORF:</b>	867 bp
<b>Locus ID:</b>	2247
<b>UniProt ID:</b>	<a href="#">P09038</a>
<b>Cytogenetics:</b>	4q28.1
<b>Domains:</b>	FGF
<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	MAPK signaling pathway, Melanoma, Pathways in cancer, Regulation of actin cytoskeleton
<b>MW:</b>	30.6 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. This protein has been implicated in diverse biological processes, such as limb and nervous system development, wound healing, and tumor growth. The mRNA for this gene contains multiple polyadenylation sites, and is alternatively translated from non-AUG (CUG) and AUG initiation codons, resulting in five different isoforms with distinct properties. The CUG-initiated isoforms are localized in the nucleus and are responsible for the intracrine effect, whereas, the AUG-initiated form is mostly cytosolic and is responsible for the paracrine and autocrine effects of this FGF. [provided by RefSeq, Jul 2008]

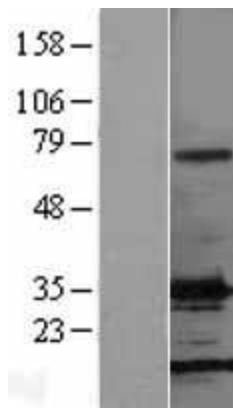
Product images:



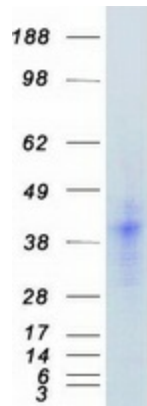
Circular map for RC217426



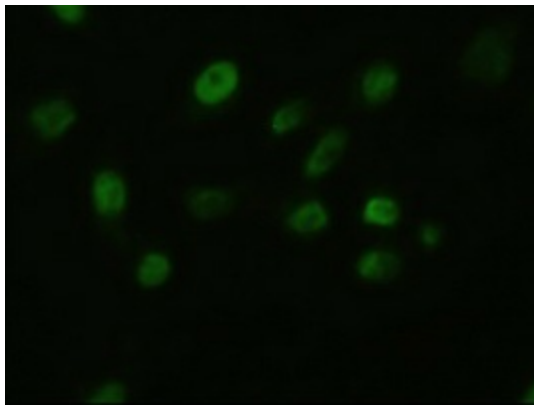
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY BFGF (Cat# RC217426, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-BFGF (Cat# [TA500012]). Positive lysates [LY400733] (100ug) and [LC400733] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400733]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217426 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FGF2 protein (Cat# [TP317426]). The protein was produced from HEK293T cells transfected with FGF2 cDNA clone (Cat# RC217426) using MegaTran 2.0 (Cat# [TT210002]).



Anti-BFGF mouse monoclonal antibody ([TA500012]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY BFGF (RC217426).