

Product datasheet for **RC215533**

FGFR3 (NM_000142) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGFR3 (NM_000142) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FGFR3
Synonyms:	ACH; CD333; CEK2; HSGFR3EX; JTK4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC215533 representing NM_000142
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
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 CCTTGGGACGGAGCAGCGCGTCTGGGGCAGCGGCAGAAAGTCCCGGGCCAGAGCCCGCCAGCAGGA
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 ACTGTGCCACTTCAGTGTGCGGGTACAGACGCTCCATCCTCGGGAGATGACGAAGACGGGGAGGACGAG
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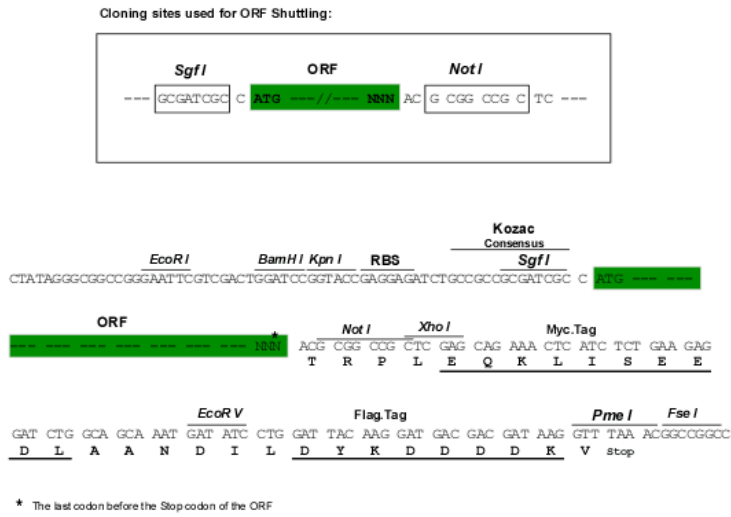
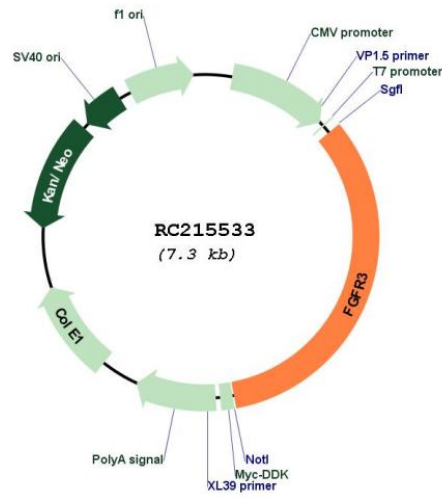
Protein Sequence: >RC215533 representing NM_000142
Red=Cloning site Green=Tags(s)

MGAPACALALCVAVAIVAGASSESLGTEQRVVGRAAEVPGPEPGQEQLVFGSGDAVELSCPPPGGGPMG
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WSLVMESVVPSSDRGNYSVVENKFGSIRQTYTLDVLESPHRPILQAGLPANQTAVLGSDVEFHCKVYSD
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MKIADFLARDVHNL DYYKTTNGRLPVKWMPEALFDRVYTHQSDVWSFGVLLWEIFTLGGSPYPGIPV
EELFKLLKEGHRMDKPANCTHDL YMIMRECWAAPSQRPTFKQLVEDLDRVLTVTSTDEYLDLSAPFEQY
SPGGQTPSSSSSGDSDVFAHDLLPPAPPSSGGSR T

TRRLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6274_d12.zip

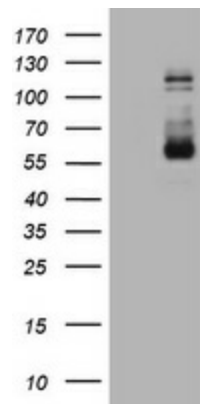
Restriction Sites: Sgfl-NotI

Cloning Scheme:

Plasmid Map:


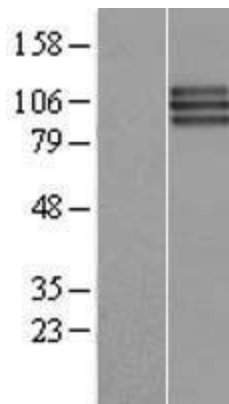
ACCN:	NM_000142
ORF Size:	2418 bp
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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:	<ol style="list-style-type: none"> 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_000142.5
RefSeq Size:	4093 bp
RefSeq ORF:	2421 bp
Locus ID:	2261
UniProt ID:	P22607
Cytogenetics:	4p16.3
Domains:	pkinase, TyrKc, S_TKc, ig, IGc2, IG
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Bladder cancer, Endocytosis, MAPK signaling pathway, Pathways in cancer, Regulation of actin cytoskeleton
MW:	87.71 kDa

Gene Summary:

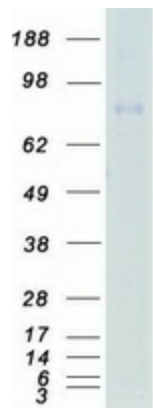
This gene encodes a member of the fibroblast growth factor receptor (FGFR) family, with its amino acid sequence being highly conserved between members and among divergent species. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein would consist of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member binds acidic and basic fibroblast growth hormone and plays a role in bone development and maintenance. Mutations in this gene lead to craniosynostosis and multiple types of skeletal dysplasia. [provided by RefSeq, Aug 2017]

Product images:

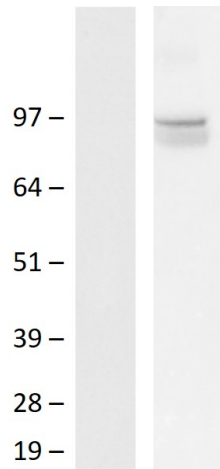
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FGFR3 (Cat# RC215533, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FGFR3 (Cat# [TA801078]). Positive lysates [LY424902] (100ug) and [LC424902] (20ug) can be purchased separately from OriGene.



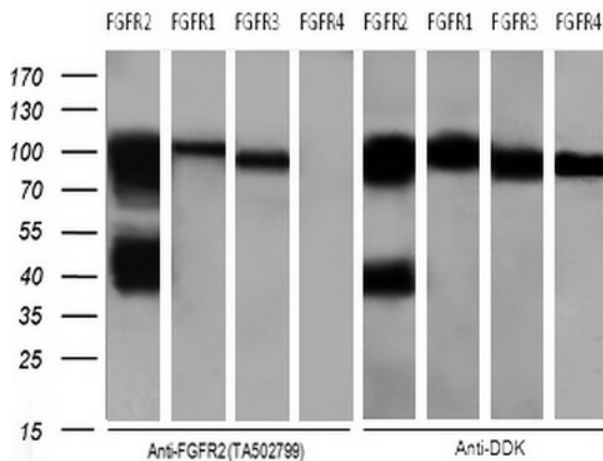
Western blot validation of overexpression lysate (Cat# [LY424902]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215533 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FGFR3 protein (Cat# [TP315533]). The protein was produced from HEK293T cells transfected with FGFR3 cDNA clone (Cat# RC215533) using MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY424902]) using an anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215533 using transfection reagent PEI



Cross-Reactivity of anti-FGFR2 (Cat# [TA502799]) with FGFR1 and FGFR3, not with FGFR4. HEK293T cells were transfected with FGFR2 (Cat# [RC217098]), FGFR1 (Cat# [RC202080]), FGFR3 (Cat# RC215533), FGFR4 (Cat# [RC204230]) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FGFR2 (Cat# [TA502799]) (1:500) and anti-DDK (Cat# TA50011, 1:2000), respectively.