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Product datasheet for SC323454

FGFR4 (NM_002011) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FGFR4 (NM_002011) Human Untagged Clone
Tag:	Tag Free
Symbol:	FGFR4
Synonyms:	CD334; JTK2; TKF
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

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Fully Sequenced ORF:

>OriGene ORF within SC323454 sequence for NM_002011 edited (data generated by NextGen Sequencing)

ATGCGGCTGCTGCTGGCCCTGTTGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTG
TCCCTGGAGGCCTCTGAGGAAGTGGAGCTTGAGCCCTGCCTGGCTCCCAGCCTGGAGCAG
CAAGAGCAGGAGCTGACAGTAGCCCTTGGGCAGCCTGTGCGGCTGTGCTGTGGGCGGGCT
GAGCGTGGTGGCCACTGGTACAAGGAGGGCAGTCGCCTGGCACCTGCTGGCCGTGTACGG
GGCTGGAGGGGCCGCCTAGAGATTGCCAGCTTCCTACCTGAGGATGCTGGCCGCTACCTC
TGCCTGGCACGAGGCTCCATGATCGTCCTGCAGAATCTCACCTTGATTACAGGTGACTCC
TTGACCTCCAGCAACGATGATGAGGACCCCAAGTCCCATAGGGACCTCTCGAATAGGCAC
AGTTACCCCCAGCAAGCACCCTACTGGACACACCCCCAGCGCATGGAGAAGAAACTGCAT
GCAGTACCTGCGGGGAACACCGTCAAGTTCCGCTGTCCAGCTGCAGGCAACCCCACGCCC
ACCATCCGCTGGCTTAAGGATGGACAGGCCTTTCATGGGGAGAACCGCATTGGAGGCATT
CGGCTGCGCCATCAGCACTGGAGTCTCGTGATGGAGAGCGTGGTGCCCTCGGACCGCGGC
ACATACACCTGCCTGGTAGAGAACGCTGTGGGCAGCATCCGTTATAACTACCTGCTAGAT
GTGCTGGAGCGGTCCCCGCACCGGCCCATCCTGCAGGCCGGGCTCCCGGCCAACACCACA
GCCGTGGTGGGCAGCGACGTGGAGCTGCTGTGCAAGGTGTACAGCGATGCCCAGCCCCAC
ATCCAGTGGCTGAAGCACATCGTCATCAACGGCAGCAGCTTCGGAGCCGACGGTTTCCCC
TATGTGCAAGTCCTAAAGACTGCAGACATCAATAGCTCAGAGGTGGAGGTCCTGTACCTG
CGGAACGTGTCAGCCGAGGACGCAGGCGAGTACACCTGCCTCGCAGGCAATTCCATCGGC
CTCTCCTACCAGTCTGCCTGGCTCACGGTGCTGCCAGAGGAGGACCCCACATGGACCGCA
GCAGCGCCCGAGGCCAGGTATACGGACATCATCCTGTACGCGTCGGGCTCCCTGGCCTTG
GCTGTGCTCCTGCTGCTGGCCAGGCTGTATCGAGGGCAGGCGCTCCACGGCCGGCACCCC
CGCCCGCCCGCCACTGTGCAGAAGCTCTCCCGCTTCCCTCTGGCCCGACAGTTCTCCCTG
GAGTCAGGCTCTTCCGGCAAGTCAAGCTCATCCCTGGTACGAGGCGTGCGTCTCTCCTCC
AGCGGCCCCGCCTTGCTCGCCGGCCTCGTGAGTCTAGATCTACCTCTCGACCCACTATGG
GAGTTCCCCCGGGACAGGCTGGTGCTTGGGAAGCCCCTAGGCGAGGGCTGCTTTGGCCAG
GTAGTACGTGCAGAGGCCTTTGGCATGGACCCTGCCCGGCCTGACCAAGCCAGCACTGTG
GCCGTCATGATGCTCAAAGACAACGCCTCTGACAAGGACCTGGCCGACCTGGTCTCGGAG
ATGGAGGTGATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCTTGGTGTCTGC
ACCCAGGAAGGGCCCCTGTACGTGATCGTGGAGTGCGCCGCCAAGGGAAACCTGCGGGAG
TTCCTGCGGGCCCGGCGCCCCCCAGGCCCCGACCTCAGCCCCGACGGTCCTCGGAGCAGT
GAGGGGCCGCTCTCCTTCCCAGTCCTGGTCTCCTGCGCCTACCAGGTGGCCCGAGGCATG
CAGTATCTGGAGTCCCGGAAGTGTATCCACCGGGACCTGGCTGCCCGCAATGTGCTGGTG
ACTGAGGACAATGTGATGAAGATTGCTGACTTTGGGCTGGCCCGCGGCGTCCACCACATT
GACTACTATAAGAAAACCAGCAACGGCCGCCTGCCTGTGAAGTGGATGGCGCCCGAGGCC
TTGTTTGACCGGGTGTACACACACCAGAGTGACGTGTGGTCTTTTGGGATCCTGCTATGG
GAGATCTTCACCCTCGGGGGCTCCCCGTATCCTGGCATCCCGGTGGAGGAGCTGTTCTCG
CTGCTGCGGGAGGGACATCGGATGGACCGACCCCCACACTGCCCCCCAGAGCTGTACGGG
CTGATGCGTGAGTGCTGGCACGCAGCGCCCTCCCAGAGGCCTACCTTCAAGCAGCTGGTG
GAGGCGCTGGACAAGGTCCTGCTGGCCGTCTCTGAGGAGTACCTCGACCTCCGCCTGACC
TTCGGACCCTATTCCCCCTCTGGTGGGGACGCCAGCAGCACCTGCTCCTCCAGCGATTCT
GTCTTCAGCCACGACCCCCTGCCATTGGGATCCAGCTCCTTCCCCTTCGGGTCTGGGGTG
CAGACATGA

Clone variation with respect to NM_002011.3
162 t=>g;407 c=>t;702 c=>t;1162 g=>a;1508 a=>t

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_002011 unedited
CCGCCCGTCCCGCAAAGGGCGGAGGCGAGTACGGTTGGAGGTTACACAAGCAGACCCGCCAGCGAACCGT
CAGAATTTGTAACACGACCCACAAAAGGGCGGCCGGAACACGGCACGAGGCCGAGGAGCGCACGGGCCGT
CTGCGGACCCTGCCGCGCGCAGGGGACGCGGCCGGCTGGAGCCGGGAGCGAGGCGGCGGAGGAGCCAGGC
GAGGAGGAGCCAGGAAGGCAGTTTGGTGGGAAGACCAGCTTGGGTCCCTGAGAGCTGTGAGAAGGAGATG
CGGCTGCTGCTGGCCCTGTTTGGGGGTCCTGCTGAGTGTGCCTGGGCCTCCAGTCTTGTCCCTGGAGGCC
TCTGAGAAGTGGAGCTTTGAGCCCTGCCTGGCTCCCAGCCTGAGCAGCAAGAGCAGAGCTGACAGTACCC
CTTGGCAGCCTGTGCGCTGTGCTGTGGCGGCTGACGTGTGCCACTGTACAGAGGCAGTCGCTGCACTGCT
GCCGTGTACGGGCTGAAGGCCGCTAAAGAATGCCAGCTCTACTGAGATGCTGCGCTACTTCTGCTTGCCC
AAGCTTCATGATCGTCTGCAAATCTCTAACTGATACCGTTGACTCCTTGACCTCAGCACCCAATGATGTA
AGGAGACCCAAGTGTCCTATGAACCTTTCTCGATTGGCAGGTATACCCCCAGCAAAGCAACCCTCATCTG
GACACCCCCACCGCATATGAAGAAACTCTTGTCATATCTCGCGGAACCGTCTAGTTCCTGTCACATTTCA
GGACACCCGCCCCACAATCTCTTGGCTAAAGTAGACAGACGCCTCTATGGAAAACATGTTAGCATCTGCT
GTCATCACATTCGTTACTCTATGTAGACGGTGCCTGCACGGGCACACACTCCGTTGAAAGACCTG

Kinase Domain Sequence:

>SC323454 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
GRKGKCTTGCGAGCCCCTAGGCGAGGGCTGCTTTGGCCAGGTAGTACGTGCAGAGGCCTTTGGCATGGAC
CCTGCCCGGCCTGACCAAGCCAGCACTGTGGCCGTCATGATGCTCAAAGACAACGCCTCTGACAAGGACC
TGGCCGACCTGGTCTCGGAGATGGAGGTGATGAAGCTGATCGGCCGACACAAGAACATCATCAACCTGCT
TGGTGTCTGCACCCAGGAAGGGCCCCTGTACGTGATCGTGGAGTG

Restriction Sites: Please inquire

ACCN: NM_002011

Insert Size: 3240 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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.

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_002011.3, NP_002002.3
RefSeq Size:	3040 bp
RefSeq ORF:	2409 bp
Locus ID:	2264
UniProt ID:	P22455
Cytogenetics:	5q35.2
Domains:	pkinase, TyrKc, S_TKc, ig, IGc2, IG
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Endocytosis, MAPK signaling pathway, Regulation of actin cytoskeleton
Gene Summary:	The protein encoded by this gene is a tyrosine kinase and cell surface receptor for fibroblast growth factors. The encoded protein is involved in the regulation of several pathways, including cell proliferation, cell differentiation, cell migration, lipid metabolism, bile acid biosynthesis, vitamin D metabolism, glucose uptake, and phosphate homeostasis. This protein consists 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 interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. [provided by RefSeq, Aug 2017] Transcript Variant: This variant (1) encodes the longest isoform (1), which contains a transmembrane domain, suggesting a membrane bound receptor. Variants 1, 3, and 5 all encode the same isoform (1).