

Product datasheet for **MR210050**

Flt1 (BC029674) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Flt1 (BC029674) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Flt1
Synonyms:	VEGFR-1, VEGFR1, sFlt1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>MR210050 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTCAGCTGCTGGACACCGGCTCTTGCCTTACGCGCTGCTCGGGTGTCTGCTTCTCACAGGATATG
 GCTCAGGGTCGAAGTTAAAAGTGCCTGAACTGAGTTTAAAAGGCACCCAGCATGTCATGCAAGCAGGCCA
 GACTCTCTTTCTCAAGTGCAGAGGGGAGGCAGCCCACTCATGGTCTCTGCCACGACCGTGAGCCAGGAG
 GACAAAAGGCTGAGCATCACTCCCCATCGGCCTGTGGGAGGGATAACAGGCAATTCTGCAGCACCTTGA
 CCTTGGACACGGCGCAGGCCAACACACGGCCTCTACACCTGTAGATACCTCCCTACATCTACTTCGAA
 GAAAAAGAAAGCGGAATCTTCAATCTACATATTTGTTAGTGATGCAGGGAGTCTTTTCATAGAGATGCAC
 ACTGACATACCCAACTGTGCACATGACGGAAGGAAGACAGCTCATCATCCCTGCCGGTGACGTCAC
 CCAACGTCACAGTCACCCTAAAAAGTTTCCATTTGATACTCTTACCCTGATGGCAAAGAATAACATG
 GGACAGTAGGAGAGGCTTTATAATAGCAAATGCAACGTACAAAGAGATAGGACTGCTGAACTGCGAAGCC
 ACCGTCAACGGGCACCTGTACCAGACAACTATCTGACCCATCGGCAGACCAATAACAATCCTAGATGTCC
 AAATACGCCCGCCGAGCCAGTGAAGTCTCCACGGGACAGACTCTTGTCTCAACTGCACCGCCACCAC
 GGAGCTCAATACGAGGGTGCAAATGAGCTGGAATTACCCTGGTAAAGCAACTAAGAGAGCATCTATAAGG
 CAGCGATTGACCGGTGCCATTCACACAACATGTGTTCCACAGTGTCTTAAGTCAACAATGTGGAGA
 GCCGAGACAAGGGGCTCTACACCTGTGCGTGAAGAGTGGTCTCGTCCAGTCTTTCAACACCTCCGT
 GCATGTGTATGAAAAAGGATTCATCAGTGTAAACATCGGAAGCAGCCGGTGCAGGAAACCACAGCAGGA
 AGACGGTCTATCGGCTGTCCATGAAAGTGAAGCCTTCCCCTCCCAGAAATCGTATGGTAAAAGATG
 GCTCGCTGCAACATTGAAGTCTGCTCGCTATTTGGTACATGGTACTCATTAAATTAACAAGATGTGAC
 AACCGAGGATGCAGGGGACTATACGATCTTGTGGGCATAAAGCAGTCAAGGCTATTTAAAAACCTCACT
 GCCACTCTCATTGTAAACGTGAAACCTCAGATCTACGAAAAGTCCGTGTCTCGTTCGCTTCAAGCCACCTC
 TCTATCCGCTGGGCAGCAGACAAGTCTCACTGCACCGTGTATGGCATCCCTCGGCCAACCAATCACGTG
 GCTCTGGCACCCCTGTCACCACAATCACTCCAAAGAAAGGTATGACTTCTGCACTGAGAATGAAGAATCC
 TTTATCCTGGATCCCAGCAGCAACTTAGGAAACAGAATTGAGAGCATCTCTCAGCGCATGACGGTCATAG
 AAGGAACAATAAGACGGTTAGCACATTGGTGGTGGCTGACTCTCAGACCCCTGGAATCTACAGTGCCG
 GGCCTTCAATAAAAATAGGACTGTGAAAGAAACATAAAAATTTATGTCACAGATGTCCGAATGGCTTT
 CACGTTTCTTGGAAAAGATGCCAGCCGAGGAGAGGACCTGAACTGTCTGTGTGGTCAATAAATTCC
 TGTACAGAGACATTACCTGGATTCTGCTACGGACAGTTAACAACAGAACCATGCACCATAGTATCAGCAA
 GCAAAAAATGGCCACCACTCAAGATTACTCCATCACTCTGAACCTTGTCATCAAGAACGTGTCTCTAGAA
 GACTCGGGCACCTATGCGTGCAGAGCCAGGAACATATACACAGGGGAAGACATCCTTCGGAAGACAGAAG
 TTCTCGTTAGAGGTGAGCACTGCGGCAAAAAGGCCATTTCTCTCGGATCTCCAATTTAAAAGCAGGAG
 GAATGATTGTACCACACAAGTCATGTCAAACAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210050 protein sequence
Red=Cloning site Green=Tags(s)

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MVSCWDTAVLPYALLGCLLLTGYGSGSKLVPELSLKGTHVMQAGQTLFLKCRGEAAHSWLSPTTVSQE
DKRLSITPPSACGRDNRQFCSTLTLDTAQANHTGLYTCRYLPTSTSKKKAESSIYIFVSDAGSPFIEMH
TDIPKLVHMTGRQLIIPCRVTPNVTVTLKFFPFDLTPDGQRITWDSRRGFIIANATYKEIGLLNCEA
TVNGHLYQTNYLTHRQNTILDVQIRPPSPVRLHGGQTLVLNCTATTELNTRVQMSWNYPGKATKRASIR
QRIDRCHSHNNVFHSLKINNVESRDKGLYTCRVKSGSSFQSFNTSVHVYEKGFISVKHRKQPVQETTAG
RRSYRLSMKVKAFPSP EIVLWLDGSPATLKSARYLVHGYSLIIKDVTTEDAGDYTILLGIKQSRLEKNT
ATLIVNVKQIYEKSVSSLPSPPLYPLGSRQVLTCTVYGIPTITWLVHPCHHNHSKERYDFCTENEE
FILDPSNLGNRIESISQRMVIEGNTKTVSTLVVADSQTPGIYSCRAFNIKIGTVERNIKFYVTDVPNGF
HVSLEKMPAEGEDLKLSCVNVKFLYRDITWILLRTVNNRMTMHSISKQKMATTDQYSITLNLVIKNSLE
DSGTYACRARNIYTGEDILRKTEVLVRGEHCGKKAIFSRISKFKSRRNDCTTQSHVKH
    
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: BC029674

ORF Size: 2064 bp

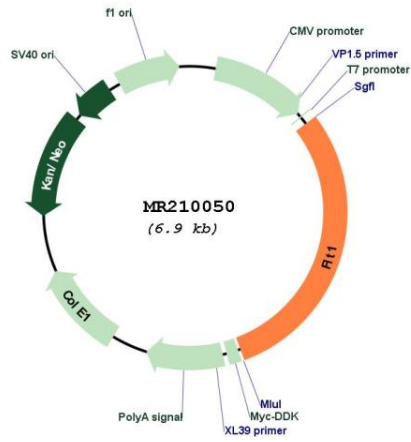
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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:	BC029674 , AAH29674
RefSeq Size:	3218 bp
RefSeq ORF:	2066 bp
Locus ID:	14254
Cytogenetics:	5 87.01 cM
MW:	77.5 kDa
Gene Summary:	<p>Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. May play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. Can promote endothelial cell proliferation, survival and angiogenesis in adulthood. Its function in promoting cell proliferation seems to be cell-type specific. Promotes PGF-mediated proliferation of endothelial cells, and proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts. Has very high affinity for VEGFA and relatively low protein kinase activity; may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to KDR. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate and the activation of protein kinase C. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to the activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Phosphorylates SRC, YES1 and PLCG, and may also phosphorylate CBL. Promotes phosphorylation of AKT1 and PTK2/FAK1 (By similarity). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR210050