

## Product datasheet for MC224257

### Flt1 (NM\_010228) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Flt1 (NM_010228) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Flt1
Synonyms:	AI323757; Flt-1; sFlt1; VEGFR-1; VEGFR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC224257 representing NM_010228 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCAGCTGCTGGGACACCGGGTCTTGCCCTACGCGCTGCTCGGGTGTCTGCTTCTCACAGGATATG  
GCTCAGGGTGAAGTTAAAAGTGCCTGAACTGAGTTAAAAGGCACCCAGCATGTCATGCAAGCAGGCCA  
GACTCTCTTTCTCAAGTGCAGAGGGGAGGCAGCCACTCATGGTCTCTGCCACGACCGTGAGCCAGGAG  
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GAAAAAGAAAGCGGAATCTTCAATCTACATATTTGTTAGTGATGCAGGGAGTCCCTTCATAGAGATGCAC  
ACTGACATACCCAACTTGTGCACATGACGGAAGGAAAGACAGCTCATCATCCCCTGCCGGGTGACGTAC  
CCAACGTACAGTCACCCATAAAAAAGTTTCCATTTGATACTCTTACCCTGATGGGCAAAGAATAACATG  
GGACAGTAGGAGAGGCTTTATAATAGCAAATGCAACGTACAAAGAGATAGGACTGCTGAACTGCGAAGCC  
ACCGTCAACGGGCACCTGTACCAGAACTATCTGACCCATCGGCAGACCAATAACAATCCTAGATGTCC  
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GGAGCTCAATACGAGGGTGCAAATGAGCTGGAATTACCCTGGTAAAGCACTAAGAGAGCATCTATAAGG  
CAGCGGATTGACCGGAGCCATCCACAAATGTGTTCCACAGTGTCTTAAGATCAACAATGTGGGAG  
GCCGAGACAAGGGCTCTACACCTGTCCGCTGAAGAGTGGTCCCTCGTTCCAGTCTTCAACACCTCCGT  
GCATGTGTATGAAAAAGGATTATCAGTGTGAAACATCGGAAGCAGCCGGTGCAGGAAACCACAGCAGGA  
AGACGGTCTATCGGCTGTCATGAAAGTGAAGGCCTTCCCCTCCCAGAAATCGTATGGTTAAAAGATG  
GCTCGCTGCAACATTGAAGTCTGCTCGCTATTTGGTACATGGCTACTATTAATTATCAAAGATGTGAC  
AACCGAGGATGCAGGGGACTATACGATCTTGTGGGCATAAAGCAGTCAAGGCTATTTAAAAACCTCACT  
GCCACTCTATTGTAACGTGAAACCTCAGATCTACGAAAAGTCCGTGTCCTCGCTTCAAGCCACCTC  
TCTATCCGCTGGCAGCAGACAAGTCTCACTTGACCCGTGTATGGCATCCCTCGGCCAACAAATCACGTG  
GCTCTGGCACCCCTGTCACCACAATCACTCCAAGAAAGGTATGACTTCTGCACTGAGAATGAAGAAATCC



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TTTATCCTGGATCCCAGCAGCAACTTAGGAAACAGAATTGAGAGCATCTCTCAGCGCATGACGGTCATAG  
AAGGAACAAATAAGACGGTTAGCACATTGGTGGTGGCTGACTCTCAGACCCTGGAATCTACAGTGCCG  
GGCCTTCAATAAAATAGGGACTGTGAAAGAAACATAAAATTTTATGTCACAGATGTGCCGAATGGCTTT  
CACGTTTCCTTGGAAAAGATGCCAGCCGAAGGAGAGGACCTGAACTGTCTGTGGTCAATAAATTCC  
TGTACAGAGACATTACCTGGATTCTGCTACGGACAGTTAAACAACAGAACCATGCACCATAGTATCAGCAA  
GCAAAAAATGGCCACCCTCAAGATTACTCCATCACTGAACTTGTCAATCAAGAACGTGTCTCTAGAA  
GACTCGGGCACCTATGCGTGCAGAGCCAGGAACATATACACAGGGGAAGACATCCTTCGGAAGACAGAAG  
TTCTCGTTAGAGATTCGGAAGCGCCACACCTGCTTCAAAACCTCAGTGACTACGAGGTCTCCATCAGTGG  
CTCTACGACCTTAGACTGTCAAGCTAGAGGTGTCCCCGCGCCTCAGATCACTTGGTTCAAAAAACAACCAC  
AAAATACAACAAGAACCAGGAAATATTTTAGGACCAGGAAACAGCACGCTGTTTATTGAAAGAGTCACAG  
AGGAGGATGAGGGTGTCTATAGGTGCCGAGCCACCAACCAGAAGGGGGCCGTGGAAGCGCAGCCTACCT  
CACCGTCAAGGAACCTCAGACAAGTCAAACCTGGAGCTGATCACGCTCACGTGCACATGCGTGGCTGCG  
ACCCTCTTTGGCTCCTTCTAACTCTTTCATCAGAAAACCTGAAGCGGTCTTCTCCGAAGTAAAGACAG  
ACTACCTGTCAATCATTATGGACCCAGATGAAGTCCCCTGGATGAGCAGTGTGAACGGTGCCTATGA  
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TGAAAGAGGGGGCCACAGCCAGTGAGTACAAGCTCTGATGACCGAACTCAAGATCTTGACCCACATCGG  
CCATCATCTGAATGTGGTTAACCTCCTGGGAGCCTGCACGAAGCAAGGAGGGCCTCTGATGGTGTGCGTG  
GAATACTGCAAAACGGAACCTGTCCAACCTCAAGAGCAAAACGTGACTTATTCTGTCTCAACAAGG  
ACGCAGCCTTGCCATATGGAGCTCAAGAAAGAGAGCCTGGAACAGGCCTGGAGCAGGGCCAGAAGCCCCG  
CCTAGACAGTGTACGAGCTCAAGTGTACCAGCTCCAGCTTCCCTGAAGACCGAAGCGTGAGCGATGTG  
GAAGGAGACGAGGATTACAGTGTGAGTCTCAAGCAGCCCTCACCATGGAAGACCTGATTTCTACAGTT  
TCCAAGTGGCCAGAGGCATGGAGTTTCTGCTCCAGAAAGTGCATTATCGGGACCTGGCAGCAGAGAAA  
CATCCTTTTATCTGAGAACAATGTGGTGAAGATTTGCGACTTTGGCTGGCCCGGATATTTATAAGAAC  
CCTGATTATGTGAGGAGAGGAGATACTCGACTTCCCCTAAAATGGATGGCTCCTGAATCCATCTTTGACA  
AGGTCTACAGCACCAAGAGCGATGTGTGGTCTATGGCGTGTGTGTGGGAGATCTTCTCCTTAGGGGG  
TTCTCCATACCCAGGAGTGCAAATGGATGAAGACTTCTGCAGCCGCTGAAGGAAGGCATGCGGATGAGA  
ACCCCGGAGTATGCCACACCTGAAATCTACCAATCATGTTGGATTGCTGGCACAAGACCCCAAAGAGA  
GGCCCCGTTTGTGAACTTGTGGAAACTTGGTGACCTGCTTCAAGCCAACGTCCAACAGGATGGGAA  
AGATTACATCCCCCTCAATGCCATACTGACTAGAAACAGTGGCTTACATACTCGACCCCCACCTTCTCT  
GAGGACCTTTTCAAGGACGGCTTTGCGATCCACATTTTCATTCCGGAAGCTCTGATGATGTGAGATATG  
TAAACGCTTTCAAATTCATGAGCCTGGAAGAATCAAAACCTTTGAGGAGCTTTCACCGAACTCCACCTC  
CATGTTTGAGGACTATCAGCTGGACACTAGCACTCTGCTGGGCTCCCCCTTGCTGAAGCGGTTACCTGG  
ACTGAGACCAAGCCCAAGGCCTCCATGAAGATAGACTTGAGAATAGCGAGTAAAAGCAAGGAGCGGGAC  
TTTCCGATCTGCCGAGGCCAGCTTCTGCTTCTCCAGCTGTGGCCACATCAGGCCGTGCAGGACGATGA  
ATCTGAGCTGGAAAGGAGTCTGCTGTCTCCACCCAGACTACAACCTCCGTGGTGTGTACTCTCTCC  
CGCCCCGCTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1230\\_d02.zip](https://cdn.origene.com/chromatograms/ja1230_d02.zip)

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_010228

**Insert Size:** 4002 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

<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>RefSeq:</b>	<u>NM_010228.3, NP_034358.2</u>
<b>RefSeq Size:</b>	6280 bp
<b>RefSeq ORF:</b>	4002 bp
<b>Locus ID:</b>	14254
<b>UniProt ID:</b>	<u>P35969</u>
<b>Cytogenetics:</b>	5 87.01 cM
<b>Gene Summary:</b>	<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>