

## Product datasheet for **RC402600**

### **FLT4 (NM\_002020) Human Mutant ORF Clone**

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	FLT4 (NM_002020) Human Mutant ORF Clone
Mutation Description:	v1051M
Affected Codon#:	1051
Affected NT#:	3151
Nucleotide Mutation:	FLT4 Mutant (v1051M), Myc-DDK-tagged ORF clone of Homo sapiens fms-related tyrosine kinase 4 (FLT4), transcript variant 2 as transfection-ready DNA
Effect:	Lymphoedema, primary
Symbol:	FLT4
Synonyms:	CHTD7; FLT-4; FLT41; LMPH1A; LMPHM1; PCL; VEGFR-3; VEGFR3
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_002020
ORF Size:	3894 bp
Restriction Sites:	SgfI-MluI
ORF Nucleotide Sequence:	>RC402600 representing NM_002020 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCAGCGGGCGCCGCGCTGTGCCTGCGACTGTGGCTCTGCCTGGGACTCCTGGACGGCCTGGTGA  
GCTACTCCATGACCCCCGACCTTGAACATCACGGAGGAGTCACACGTCATCGACACCGGTGACAGCCT  
GTCCATCTCCTGCAGGGGACAGCACCCCTCGAGTGGGCTTGGCCAGGAGCTCAGGAGGCCAGCCACC  
GGAGACAAGGACAGCGAGGACACGGGGTGGTGCAGACTGCGAGGGCACAGACGCCAGGCCCTACTGCA  
AGGTGTTGCTGCTGCACGAGGTACATGCCAACGACACAGGCAGCTACGCTGCTACTACAAGTACATCAA  
GGCAGCATCGAGGGCACCGCCGAGCTCCTACGTGTTTCGTGAGAGACTTTGAGCAGCCATTCATC  
AACAGCCTGACAGCTCTTGGTCAACAGGAAGGACGCCATGTGGGTGCCCTGTCTGGTGTCCATCCCCG



[View online »](#)

GCCTCAATGTCACGCTGCGCTCGCAAAGCTCGGTGCTGTGGCCAGACGGGCAGGAGGTGGTGTGGGATGA  
 CCGGCGGGGCATGCTCGTGTCCACGCCACTGCTGCACGATGCCCTGTACCTGCAGTGCAGAGACCCTGG  
 GGAGACCAGGACTTCCTTTCAACCCCTTCTGGTGCACATCACAGGCAACGAGCTCTATGACATCCAGC  
 TGTTGCCAGGAAGTCTGCTGGAGCTGCTGGTAGGGGAGAAGCTGGTCTGAACTGCACCGTGTGGGCTGA  
 GTTTAACTCAGGTGTACCTTTGACTGGGACTACCCAGGAAGCAGGCAGAGCGGGTAAAGTGGGTGCC  
 GAGCGACGCTCCAGCAGACCCACAGAAGCTCCAGCATCTGACCATCCACAACGTACGCCAGCAGCAG  
 ACCTGGGCTCGTATGTGTCAAAGGCCAACACGGCATCCAGCGATTTCCGGGAGAGCACCAGGATTTGT  
 GCATGAAAATCCCTTCATCAGCGTCGAGTGGCTCAAAGGACCCATCCTGGAGGCCACGGCAGGAGACGAG  
 CTGGTGAAGCTGCCCGTGAAGCTGGCAGCGTACCCCCGCCGAGTTCAGTGGTACAAGGATGGAAGG  
 CACTGTCCGGGCGCCACAGTCCACATGCCCTGGTGTCAAAGGAGTGACAGAGGCCAGCACAGGCACCTA  
 CACCCTCGCCCTGTGAACTCCGCTGCTGGCCTGAGGCGCAACATCAGCCTGGAGCTGGTGGTGAATGTG  
 CCCCCCAGATACATGAGAAGGAGGCCCTCCTCCCCAGCATCTACTCGCGTCACAGCCGCCAGGCCCTCA  
 CCTGCACGGCCTACGGGGTGGCCCTGCCTCTCAGCATCCAGTGGCACTGGCGGCCCTGGACACCTGCAA  
 GATGTTTGGCCAGCGTAGTCTCCGGCGGCGGCAGCAGCAAGACCTCATGCCACAGTGGCCTGACTGGAGG  
 GCGGTGACCACGCAGGATGCCGTGAACCCATCGAGAGCTGGACACCTGGACCGAGTTTGTGGAGGGAA  
 AGAATAAGACTGTGAGCAAGCTGGTGTATCCAGAATGCCAACGTGTCTGCCATGTACAAGTGTGTGGTCTC  
 CAACAAGTGGGCCAGGATGAGCGGCTCATCTACTTCTATGTGACCACCATCCCCGACGGCTTACCATC  
 GAATCCAAGCCATCCGAGGAGCTACTAGAGGGCCAGCCGGTGTCTCTGAGCTGCCAAGCCGACAGCTACA  
 AGTACGAGCATCTGCGCTGGTACCGCCTCAACCTGTCCACGCTGCACGATGCGCACGGGAACCCGCTTCT  
 GCTCGACTGCAAGAAGTGCATCTGTTCCGCCACCCCTCTGGCCGCCAGCTGGAGGAGGTGGACCTGGG  
 GCGCGCCACGCCACGCTCAGCCTGAGTATCCCCCGCTCGCGCCGAGCAGGAGGCCACTATGTGTGCG  
 AAGTGAAGACCGGCGCAGCCATGACAAGCACTGCCACAAGAAGTACCTGTGGTGCAGGCCCTGGAAGC  
 CCCTCGGCTCAGCAGAAGTTGACCCAGCTCTGGTGAACGTGAGCGACTCGTGGAGATGCAAGTGTG  
 GTGGCCGAGCGCAGCCGCCAGCATCTGTGGTACAAGACGAGAGGCTGCTGGAGGAAAAGTCTGGAG  
 TCGACTTGGCGGACTCCAACCAGAAGCTGAGCATCCAGCGCTGCGCGAGGAGGATGCGGGACGCTATCT  
 GTGACGCTGTGCAACGCCAAGGGCTGCGTCAACTCCTCCGCCAGCGTGGCCGTGGAAGGCTCCGAGGAT  
 AAGGGCAGCATGGAGATCGTATCCTTGTGCGTACCGCGTCATCGTGTCTTCTTCTGGGTCTCTCTCC  
 TCCTCATCTTCTGTAACATGAGGAGGCCGCCACGCAGACATCAAGACGGGCTACCTGTCCATCATCAT  
 GGACCCCGGGGAGGTGCCTCTGGAGGAGCAATGCGAATACCTGTCTACGATGCCAGCCAGTGGGAATTC  
 CCCCAGAGCGGCTGCACCTGGGAGAGTGTCTGGCTACGGCGCCTTCGGGAAGTGGTGAAGCCTCCG  
 CTTTCCGATCCACAAGGGCAGCAGCTGTGACACCGTGGCCGTGAAAATGCTGAAAGAGGGGCCACGGC  
 CAGCGACACCCGCGCTGATGTGCGAGCTCAAGATCCTATTACATCGGCAACCACCTCAACGTGGTC  
 AACCTCCTCGGGCGTGCACCAAGCCGAGGGCCCCCTCATGGTGTGCTGGAGTTCTGCAAGTACGGCA  
 ACCTCTCCAATTCTGCGCGCCAAGCGGGACGCCCTCAGCCCTGCGCGGAGAAGTCTCCCAGCAGCG  
 CGGACGCTTCCGCGCCATGGTGGAGCTCGCCAGGCTGGATCGGAGGCGGCGGGGAGCAGCGACAGGGTC  
 CTCTTCCGCGGTTCTCGAAGACCGAGGGCGGAGCGAGGCGGGCTTCTCCAGACCAAGAAGTGGAGACC  
 TGTGGCTGAGCCCGTACCATGGAAGATCTTGTCTGTACAGCTTCCAGGTGGCCAGAGGGATGGAGTT  
 CCTGGCTTCCGAAAGTGCATCCACAGAGACCTGGCTGCTCGGAACATTCTGCTGTGGAAGGCAGCTG  
 ATGAAGATCTGTGACTTTGGCCTTGCCCGGACATCTACAAGACCCCGACTACGTCCGCAAGGGCAGTG  
 CCCGGCTGCCCTGAAAGTGGATGGCCCTGAAAGCATCTTCGACAAGGTGTACACCACGCAGAGTGACGT  
 GTGGTCTTTGGGTGCTTCTCTGGGAGATCTTCTCTTGGGGCCTCCCGTACCCTGGGGTGCAGATC  
 AATGAGGAGTTCTGCCAGCGCTGAGAGACGGCACAAGGATGAGGGCCCCGAGCTGGCCACTCCCGCCA  
 TACGCCGATCATGCTGAACTGCTGGTCCGGAGACCCCAAGGCGAGACCTGCATTCTCGGAGCTGGTGA  
 GATCCTGGGGACCTGCTCCAGGGCAGGGCCTGCAAGAGGAAGAGGAGGTCTGCATGGCCCCGCGCAGC  
 TCTCAGAGCTCAGAAGAGGGCAGCTTCTCGCAGGTGTCCACCATGGCCCTACACATCGCCCAGGCTGACG  
 CTGAGGACAGCCGCCAAGCCTGCAGCGCCACAGCCTGGCCGCCAGGTATTACAAGTGGGTGCTTTCC  
 CGGGTGCCTGGCCAGAGGGGCTGAGACCGTGGTTCCTCCAGGATGAAGACATTTGAGGAATTTCCCATG  
 ACCCCAACGACCTACAAGGCTCTGTGACAACCAGACAGACAGTGGGATGGTGTGGCCTCGGAGGAGT  
 TTGAGCAGATAGAGAGCAGCATAGACAAGAAAGCGGCTTCAGG

AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:** >RC402600 representing NM\_002020  
 Red=Cloning site Green=Tags(s)

```

MQRGAALCLRLWLCGLLDGLVSGYSMTPTLNITEESHVIDTGDSLISICRQHPLEWAWPGAQEAPAT
GDKDSEDTGVVRDCEGTDARPYCKVLLLEHVHANDTGSYVCYKYIKARIEGTTAASSYVFVRDFEQPFI
NKPDTLLVNRKDAMWVPLVSIPLNVTLSQS SVLWPDGQEVVWDDRRGMLVSTPLLDHALYLQETT W
GDQDFLSNPFLVHITGNELYDIQLLPRKLELLVGEKLVNCTVWAEFNSGVTFDWDYPGKQAERGWVP
ERRSQQTHTESSILTIHNVSQHDLSYVCKANNGIQRFRESTEVIHNPFI SVEWLKGP ILEATAGDE
LVKLPVKLAAYPPPEFQWYKDGKALSGRHSPHALVLKEVTEASTGTYTLALWNSAAGLRRNISLELVNV
PPQIHEKEASSPSIYSRHSRQALTCTAYGVPLPLSIQWHWRPWPCKMFAQRSLRRRQQQLMPQCRDWR
AVTTQDAVNPIESLDTWTEFVEGKNKTVSKLVIQNAVNSAMYKCVSNKVGQDERLIYFYVTTIPDGFTI
ESKPSEELLEGGQPVLLSCQADSYKYEHLRWYRLNLSTLHDAHGNPLLLDCKNVHLFATPLAASLEEVAPG
ARHATLSLSIPRVAPEHEGHYVCEVQDRRSHDKHCHKKYL SVQALEAPRLTQNL TDLLVNVSDSLEMQCL
VAGAHAPSIWYKDERLLEEKSGVDLADSNQKLSIQRVREEDAGRYLCSVCNAKGCVNSSASVAVEGSED
KGSMEIVILVGTGVI VFFWVLLLLIFCNMRRPAHADIKTG YLSIIMDPGEVPLEEQCEYL SYDASQWEF
PRERLHLGRVLGYGAFGKVVEASAFGIHKGSSCDTVAVKMLKEGATASEHRALMSELKILIHIGNHLNVV
NLLGACTKPQGPLMVIVEFCKYGNLSNFLRAKRDAFSPCAEKSPQRGRFRAMVELARLDRRRPGSSDRV
LFARFSKTEGGARRASPDQEAEDLWLSPLTMEDLVCYSFQVARGMEFLASRCKIHRDLAARNILLSESDV
MKICDFGLARDIYKDPDYVRKGSARLPLKWMAPESIFDKVYTTQSDVWSFGVLLWEIFSLGASPYGVQI
NEEFCQRLRDGTRMRAPELATPAIRIIMLNCWSDGPKARPAFSELVEILGDLLQGRGLQEEEEVCMAPRS
SQSSEEGSFQVSTMALHIAQADAEDSPPSLQRHSLAARYYNWVSFPGCLARGAETRGSRRMKTFFEFPM
TPTTYKGSVDNQTDSGMVLASEEFEQIESRHRQESGFR
  
```

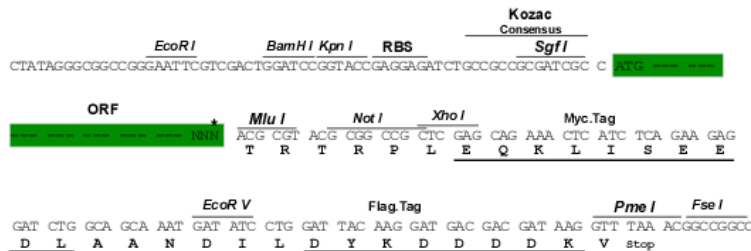
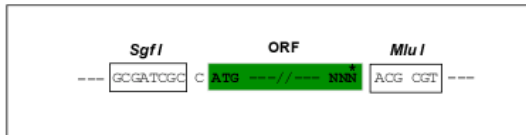
SGPTRRRLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

**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](#)

<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>RefSeq:</b>	<u>NP_002011</u>
<b>RefSeq Size:</b>	3894 bp
<b>RefSeq ORF:</b>	3897 bp
<b>Locus ID:</b>	2324
<b>Cytogenetics:</b>	5q35.3
<b>Domains:</b>	pkinase, TyrKc, S_TKc, ig, IGc2, IG
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, Focal adhesion
<b>MW:</b>	142.8 kDa
<b>Gene Summary:</b>	This gene encodes a tyrosine kinase receptor for vascular endothelial growth factors C and D. The protein is thought to be involved in lymphangiogenesis and maintenance of the lymphatic endothelium. Mutations in this gene cause hereditary lymphedema type IA. [provided by RefSeq, Jul 2008]