

## Product datasheet for **RC600013**

### **FLT3 (NM\_004119) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FLT3 (NM_004119) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	FLT3
Synonyms:	CD135; FLK-2; FLK2; STK1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RC600013 representing leader sequence plus the extracellular domain region of NM\_004119

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCTGGTACCGAGGAGATCCGCCGCCG  
CGATCGCC

ATGCCGGCGTTGGCGCGCAGCGCGCCAGCTGCCGCTGCTCGTTGTTTTCTGCAATGATATTTGGGA  
CTATTACAAATCAAGATCTGCCTGTGATCAAGTGTGTTTAAATCAATCATAAGAACAATGATTCATCAGT  
GGGAAGTCATCATCATATCCCATGGTATCAGAATCCCCGGAAGACCTCGGGTGTGCGTTGAGACCCAG  
AGCTCAGGACAGTGTACGAAGCTGCCGCTGTGGAAGTGGATGTATCTGCTTCCATCACACTGCAAGTGC  
TGGTCGACGCCCCAGGGAACATTTCTGTCTCTGGGTCTTAAAGCACAGCTCCCTGAATTGCCAGCCACA  
TTTTGATTTACAAAACAGAGGAGTTGTTCCATGGTCATTTTAAAATGACAGAAACCAAGCTGGAGAA  
TACCTACTTTTTATTAGAGTGAAGCTACCAATTACACAATATTGTTTACAGTGTAGATAAGAAATACCC  
TGCTTTACACATTAAGAAGACCTTACTTTAGAAAATGAAAACAGGACGCCCTGGTCTGCATATCTGA  
GAGCGTCCAGAGCCGATCGTGGAAATGGGTGCTTTGCGATTACAGGGGGAAAGCTGTAAGAAGAAAGT  
CCAGCTGTTGTTAAAAAGGAGGAAAAAGTCTTCATGAATTTTGGGACGGACATAAGGTGCTGTGCCA  
GAAATGAACTGGGAGGGAATGCACCAGGCTGTTACAATAGATCTAAATCAAATCCTCAGACCACATT  
GCCACAATTTTCTTAAAGTAGGGGAACCCCTTATGGAAGGTGCAAAGCTGTTTATGTGAACCATGGA  
TTCGGGCTCACCTGGGAATTAGAAAACAAGCACTCGAGGAGGGCACTACTTTGAGATGAGTACCTATT  
CAACAAACAGAATATGATACGGATTCTGTTTGTCTTTGTATCATCAGTGGCAAGAAACGACACCCGATA  
CTACACTTGTTCCTCTTCAAAGCATCCCAGTCAATCAGCTTTGGTTACCATCGTAGAAAAGGGATTTATA  
AATGCTACCAATTCAAGTGAAGATTATGAAATGACCAATGAAGAGTTTGTGTTTCTGTGAGTTTA  
AAGCCTACCCACAAATCAGATGTACGTGGACCTTCTCTGAAAATCATTTCCTTGTGAGCAAAAAGGGTCT  
TGATAACGGATACAGCATATCCAAGTTTGAATCATAAGCACCAGCCAGGAGAATATATATTTCCATGCA  
GAAAATGATGATGCCAATTTACCAAAATGTTACGCTGAATATAAGAAGGAAACCTCAAGTGTGCGAG  
AAGCATCGGCAAGTCAGGCGTCTGTTTCTCGGATGGATACCCATTACCATCTTGGACCTGGAAGAAGTG  
TTCAGACAAGTCTCCAACTGCACAGAAGAGATCACAGAAGGAGTCTGGAATAGAAAAGGCTAACAGAAAA  
GTGTTTGGACAGTGGGTGTCGAGCAGTACTCTAAACATGAGTGAAGCCATAAAAGGGTCTCGTCAAGT  
GCTGTGCATACAATCCCTTGGCACATCTGTGAGACGATCCTTTAAACTCTCCAGGCCCTTCCCTTT  
CATCCAAGACAACATCTCA

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCTAATGAGATC  
TGGTACCGATATCAAGCTTGTGACTCTAGA

**Protein Sequence:**

>RC600013 representing signal peptide plus the extracellular domain region of NM\_004119

Red=Cloning sites Green= DDK and 6XHIS Tags

MPALARDGGQLPLLVVFSAMIFGTITNQDLPVIKCVLINHKNNDSVVGKSSSYPMVSESPEDLGCALRPQ  
SSGTVYEEAAAVEVDVSASITLQVLVDAPGNISCLWVFKHSSLNCQPHFDLQNRGVVSMVILKMTETQAGE  
YLLFIQSEATNYILFTVSIKNTLLYLRRPYFRKMENQDALVCISESVPEPIVEVWLCDSQGESCKEES  
PAVVKKEEKVLHELFGTDIRCCARNELGRECTRLFTIDLNQTPQTLPQLFLKVGPELWIRCKAVHVNHG  
FGLTWELNKALEEGNYFEMSTYSTNRMTIRILFAFVSSVARNDTGYTCSKHPQSALVTIVEKGF  
NATNSSEIDYEEFCFVRFKAYPQIRCTWTFSRKSFPEQKGLDNGYSISKFCNHKHQPGEYIFHA  
ENDDAQFTKMFTLNIRRPQVLAEASASQASCFSDGYPLPSWTWKKCSKSPNCTEEITEGVWNRKANRK  
VFGQWVSSSTLNMSEAIKGLVKKCAYNLSLGTSCETILLNSPGPFPIQDNIS

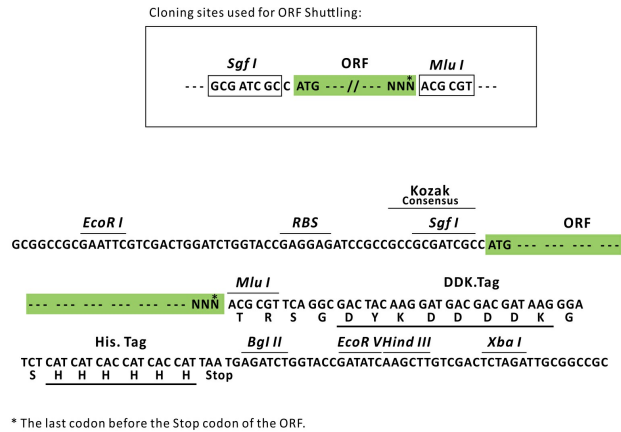
TRSGTRSGDYKDDDDKGSHHHHHH

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8117\\_d06.zip](https://cdn.origene.com/chromatograms/mk8117_d06.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_004119

**ORF Size:** 1629 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 extra cellular domain of the protein 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:**
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\\_004119.2](#), [NP\\_004110.2](#)

**RefSeq Size:** 3848 bp

**RefSeq ORF:** 2982 bp

**Locus ID:** 2322

**UniProt ID:** [P36888](#)

**Cytogenetics:** 13q12.2

<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Acute myeloid leukemia, Cytokine-cytokine receptor interaction, Hematopoietic cell lineage, Pathways in cancer
<b>MW:</b>	61 kDa
<b>Gene Summary:</b>	This gene encodes a class III receptor tyrosine kinase that regulates hematopoiesis. This receptor is activated by binding of the fms-related tyrosine kinase 3 ligand to the extracellular domain, which induces homodimer formation in the plasma membrane leading to autophosphorylation of the receptor. The activated receptor kinase subsequently phosphorylates and activates multiple cytoplasmic effector molecules in pathways involved in apoptosis, proliferation, and differentiation of hematopoietic cells in bone marrow. Mutations that result in the constitutive activation of this receptor result in acute myeloid leukemia and acute lymphoblastic leukemia. [provided by RefSeq, Jan 2015]