

Product datasheet for **MG203650**

Kitl (NM_013598) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Kitl (NM_013598) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Kitl
Synonyms:	blz; Clo; Con; contrasted; Gb; Kitlg; Mgf; SCF; SF; Sl; SLF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG203650 representing NM_013598 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGAAGACACAACTTGGATTATCACTTGCATTTATCTCCAAGTCTCCTATTTAATCCTCTCGTCA
AAACCAAGGAGATCTGCGGGAATCCTGTGACTGATAATGTAAAAGACATTACAAAAGTGGCAAATCT
TCCAAATGACTATATGATAACCCCAACTATGTCGCCGGGATGGATGTTTGCCTAGTCATTGTTGGCTA
CGAGATATGGTAATAACAATTACTACTCAGCTTACTACTCTTCTGGACAAGTTCTCAAATATTTCTGAAG
GCTTGAGTAATTACTCCATCATAGACAACTTGGGAAAATAGTGGATGACCTCGTGTATGCATGGAAGA
AAACGCACCGAAGAATATAAAAAGATCTCCGAAGAGGCCAGAACTAGATCCTTTACTCCTGAAGAATTC
TTTAGTATTTTCAATAGATCCATTGATGCCTTTAAAGACTTTATGGTGGCATCTGACACTAGTGACTGTG
TGCTCTCTTCAACATTAGGTCCCGAGAAAGATTCCAGAGTCAGTGTACAAAACCATTTATGTTACCCCC
TGTTGCAGCCAGCTCCCTTAGGAATGACAGCAGTAGCAGTAATAGGAAAGCTGCAAAGTCCCCTGAAGAC
TCGGGCTACAATGGACAGCCATGGCATTGCCGGCTCTCATTTGCTTGTAAATGGCTTTGCTTTGGAG
CCTTATACTGGAAGAAGAACAGTCAAGTCTTACAAGGCAGTTGAAAATATACAGATTAATGAAGAGGA
TAATGAGATAAGTATGTTGCAACAGAAAGAGAGAGAATTTCAAGAGGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG203650 representing NM_013598
 Red=Cloning site Green=Tags(s)

MKKTQTWIITCIYLQLLLFNPLVKTKEICGNPVTDNVKDITKLVANLPNDYMITLNYVAGMDVLPShCWL
 RDMVIQLSLSLTLLDKFSNISEGLSNYSIIDKLGKIVDDLVLCEENAPKNIKESPKRPETRSFTPEEF
 FSIFNRSIDAFKDFMVASDTSDCVLSSTLGP EKDSRVSVTKPFMLPPVAASSLRNDSSSSNRKAAKSPED
 SGLQWTAMALPALISLVIGFAFGALYWKKKQSSLTRAVENIQINEEDNEISMLQQKEREFEV

TRTRPLE - GFP Tag - V

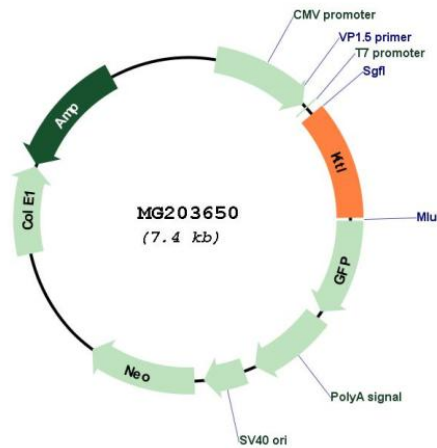
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_013598

ORF Size: 819 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:	NM_013598.1 , NP_038626.1
RefSeq Size:	5449 bp
RefSeq ORF:	822 bp
Locus ID:	17311
UniProt ID:	P20826
Cytogenetics:	10 51.4 cM
Gene Summary:	Ligand for the receptor-type protein-tyrosine kinase KIT. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. Promotes phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG/SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG/SCF and KIT promote activation of STAT family members STAT1, STAT3 and STAT5. KITLG/SCF and KIT promote activation of PLCG1, leading to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. KITLG/SCF acts synergistically with other cytokines, probably interleukins.[UniProtKB/Swiss-Prot Function]