

Active Recombinant Mouse Kit Ligand

Cat. No. Kitl-307M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Stem Cell Factor (Kitl) is involved in survival, differentiation and activation of myeloid, erythroid, lymphoid, mast cells, eosinophils and other progenitor cells. mKitl signals through its receptor, tyrosine kinase Kitl R/c-kit. It is produced in E.Coli as a single, non-glycosylated polypeptide chain containing 164 amino acids and having a molecular mass of 18,309 Daltons.
Species	Mouse
Source	E.coli
Description	Stem Cell Factor (also known as SCF, kit-ligand, KL, or steel factor) is a cytokine that binds to the c-Kit receptor (CD117). Kitl can exist both as a transmembrane protein and a soluble protein.
Form	Lyophilized from a concentrated (1mg/ml) solution in water containing 10mM Sodium phosphate buffer pH=6.5.
Purity	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Recombinant Mouse Kitl is fully biologically active when compared to standard. The ED50, as determined by the dose-dependent stimulation of Human TF-1 cells, is 5.5 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

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Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/μl, which can be further diluted into other aqueous solutions.
Purity Greater than 98% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	KEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVL MEENAPKNIK ESPKRPETRS FTPEEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.
Pathways	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Melanogenesis; Pathways in cancer

GENE INFORMATION

Gene Name *Kitl* kit ligand [*Mus musculus*]

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Official Symbol	Kitl
Synonyms	Kitl; kit ligand; Gb; SF; Sl; Clo; Con; Mgf; SCF; SLF; Kitlg; Steel; contrasted
Gene ID	17311
mRNA Refseq	NM_013598
Protein Refseq	NP_038626
UniProt ID	P20826
Chromosome Location	10 D1; 10 57.0 cM
Function	Growth factor activity; Identical protein binding; Stem cell factor receptor binding
PDB rendering based on 1exz	