

Active Recombinant Mouse Kitl Protein

Cat. No. Kitl-7281M **Lot. No.** (See product label)

SPECIFICATION

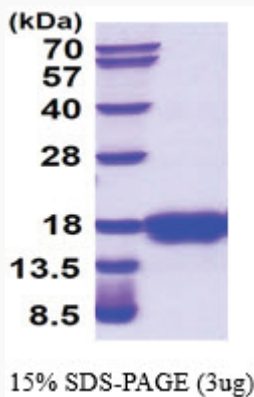
Product Overview	Recombinant Mouse Kitl Protein without tag was expressed in E. coli.
Species	Mouse
Source	E.coli
ProteinLength	26-189
Description	Ligand for the receptor-type protein-tyrosine kinase KIT. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem 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.
Form	Liquid
Bio-activity	Murine LIF is fully biologically active when compared to standards. The ED50 as determined by the M1 cell differentiation assay is = 0.05 ng/mL, corresponding to a

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	specific activity of = 2×10^7 units/mg.
Molecular Mass	18 kDa
AA Sequence	MKEICGNPVTDNVKDITKLVANLPNDYMITLNYVAGMDVLP SHCWLRDMVIQLSLSL TTLLDKFSNISEGLSNYSIIDKLGKIVDDL VLCMEENAPKNIKESPKRPETRSFTPEEFF SIFNRSIDAFKDFMVASDTSDCVLSSTLGPEKDSRVSVTKPFMLPPVA
Endotoxin	< 1.0 EU/μg of protein (determined by LAL method)
Purity	> 95 % by SDS-PAGE
Stability	Shelf life: one year from despatch.
Storage	Store undiluted at 2-8 centigrade for one week or (in aliquots) at -20 to -80 centigrade for longer. Avoid repeated freezing and thawing.
Concentration	1.0 mg/mL (determined by bradford assay)
Storage Buffer	Phosphate buffer saline (pH 7.4) containing 10 % glycerol.
GENE INFORMATION	
Gene Name	Kitl kit ligand [<i>Mus musculus</i> (house mouse)]
Official Symbol	Kitl
Synonyms	Kitl; kit ligand; S; Gb; SC; SF; SI; bl; Clo; Con; Kit; Mgf; SCF; SLF; Ste; blz; Kitlg; contrasted; kit ligand; C-kit ligand; Steel factor; cloud gray; grizzle-belly; hematopoietic growth factor KL; mast cell growth factor; stem cell factor; EC 3.2.1.31

Gene ID	17311
mRNA Refseq	NM_001347156
Protein Refseq	NP_001334085
UniProt ID	P20826
SDS-PAGE	 15% SDS-PAGE (3ug)