

Active Recombinant Mouse Kitl Protein

Cat. No. Kitl-3697M Lot. No. (See product label)

SPECIFICATION

Product Overview Purified recombinant protein of Mouse kit ligand (Kitl) without tag was expressed in E. coli.

Species Mouse

Source E.coli

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.

Bio-activity The ED50 as determined by the dose-dependent stimulation of the proliferation of the human TF-1 cells is > 10 ng/mL, corresponding to a specific activity of > 1 × 10⁵ units/mg.

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Molecular Mass	18.3 kDa
AA Sequence	MKEICGNPVTDNVKDITKLVANLPNDYMITLNYVAGMDVLP SHCWLRDMVIQLSLSL TTLLDKFSNISEGLSNYSIIDKLGKIVDDLVL CMEENAPKNIKESPKRPETRSFTPEEFF SIFNRSIDAFKDFMVASDTSDCVLSSTLGPEKDSRVSVTKPFMLPPVA
Endotoxin	< 0.1 ng/μg of protein (< 1 EU/μg)
Purity	> 95% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
Storage	Store at -80 centigrade.
Storage Buffer	Lyophilized from a 0.2 μM filtered solution of 20 mM phosphate buffer, 100 mM NaCl, pH 7.2

GENE INFORMATION

Gene Name	Kitl kit ligand [<i>Mus musculus</i> (house mouse)]
Official Symbol	Kitl
Synonyms	KITL; kit ligand; cloud gray; C-kit ligand; Steel factor; grizzle-belly; stem cell factor; mast cell growth factor; hematopoietic growth factor KL; Gb; SF; Sl; Clo; Con; Mgf; SCF; SLF; Kitlg; contrasted
Gene ID	17311
mRNA Refseq	NM_013598

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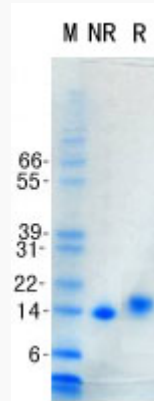
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Protein Refseq NP_038626

UniProt ID P20826

SDS-PAGE



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