

Recombinant Mouse Kit Ligand

Cat. No. Kitlg-5252M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Kitlg is a disulfide-linked monomer protein consisting of 175 amino acid residue subunits, and due to glycosylation migrates as an approximately 23 kDa protein under non-reducing and reducing conditions in SDS-PAGE, and was lyophilized from a 0.2 µm filtered solution in 20mM Tris, 5% trehalose, pH 7.5.
Species	Mouse
Source	Mouse
Description	Kitlg is a stromal cell-derived cytokine synthesized by fibroblasts and other cell types. Kitlg promotes proliferation and early differentiation of cells at the level of multipotential stem cells. It has been suggested that Kitlg is essential for optimal production of various hematopoietic lineages, mainly because of its ability to prevent apoptosis when it co-stimulates with other cytokines. The receptor for Kitlg, designated SCFR (CD117), is the oncogene designated as KIT.
Purity	>95%, as determined by SDS-PAGE and HPLC.
Sequence	MKKTQTWIIT CIYLQLLL FN PLVKTKEICG NPVTDNVKDI TKLVANLPND YMITLNYVAG MDVLP SHCWL RDMVIQLSLS LTTLLDKFSN ISEGLSNYSI IDKLGKIVDD LVL CMEENAP KNIKESPKRP ETRSFTPEEF FSIFNRSIDA FKDFMVASDT SDCVLSSTLG PEKDSRVSVT KPFMLPPVAA SSLRNDSSSS NRKAAKAPED SGLQWTAMAL PALISLVIGF AFGALYWKKK QSSLTRAVEN IQINEEDNEI SMLQQKEREQ QEV

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Molecular Weight	Native Mouse Stem Cell Factor is generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 18 kDa.
Biological Activity	The ED(50) was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is ≤ 2.0 ng/ml, corresponding to a specific activity of $\geq 5 \times 10^5$ units/mg.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/g (1 EU/g).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2°C - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.
Official Symbol	Kitlg
Pathways	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Kit Receptor Signaling Pathway; Melanogenesis; Pathways in cancer

GENE INFORMATION

Gene Name	Kitlg KIT ligand [<i>Rattus norvegicus</i>]
Synonyms	Kitlg; kit ligand; Mgf; SCF; Kitl; kit ligand; C-kit ligand; stem cell factor KL-1; mast cell growth factor; steel factor/kit ligand; hematopoietic growth factor KL

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Gene ID	60427
mRNA Refseq	NM_021843
Protein Refseq	NP_068615
UniProt ID	P21581
Function	cytokine activity; growthfactor activity; identical protein binding; stem cell factor receptor binding
PDBrendering based on 1exz.	

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