

Growth Factor Data Sheet

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KIT Ligand (KITLG), also called Stem Cell Factor (SCF) which binds to the c-Kit receptor is produced by fibroblasts and endothelial cells. The soluble and transmembrane forms of the protein are formed by alternative splicing of the same RNA transcript and the presence of both soluble and transmembrane SCF is required for normal hematopoietic function. SCF plays an important role in hematopoiesis, spermatogenesis and melanogenesis and it promotes mast cell adhesion, migration, proliferation, and survival. Rat KITLG shares 75-90% amino acid sequence identity with canine, feline, mouse, and human KITLG. Furthermore, rat KITLG is active on mouse and human cells, but human KITLG is only weakly active on mouse cells.

Catalog Number	1520-01
Product Name	KITLG (SCF), Rat Recombinant Rat KIT Ligand Stem Cell Factor, SCF Mast Cell Growth Factor, MGF, MCGF Familial Progressive Hyperpigmentation 2, FPH2
Source	<i>Escherichia coli</i>
MW	~18.5 kDa (165 amino acids)
Sequence	MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVAE MEENAPKNVK ESLKKPETRN FTPEEFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA
Accession Number	P21581
Purity	>95% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine MC/92 mast cells is less than 5 ng/ml, corresponding to a specific activity of >2.0×10 ⁵ IU/mg.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.