

# Growth Factor Data Sheet

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C-kit ligand, the recently identified ligand for the kit tyrosine kinase receptor, is mapped to the mouse S1 locus. This pleiotropic cytokine, alternately known as stem cell factor (SCF), mast cell growth factor (MGF) and steel-factor (SLF), plays essential roles in gametogenesis, melanogenesis and early stages of hematopoiesis. In vitro and in vivo KITLG can stimulate the proliferation of mature, as well as the proliferation and maturation of immature mast cells. KITLG acts in a synergistic manner on purified primitive human and mouse hematopoietic precursors, with various growth factors (such as IL1, IL3, IL6, IL7 and Epo,) to induce myeloid, erythroid and lymphoid lineage colony formation. The finding that KITLG is also expressed in the nervous system suggests a possible role for KITLG in the development of the nervous system.

<b>Catalog Number</b>	<b>1120-01</b>
<b>Product Name</b>	<b>KITLG (SCF), Human</b> Recombinant Human KIT Ligand Kitl, KL-1 Stem Cell Factor, SCF Mast Cell Growth Factor, MGF
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~18.5 kDa (164 amino acid)
<b>Sequence</b>	EGICRNRVTN NVKDVTKLVA NLPKDYMITL KYVPGMDVLP SHCWISEMVV QLSDSLTDLL DKFSNISEGL SNYSIIDKLV NIVDDLVECV KENSSKDLKK SFKSPEPRLF TPEEFFRIFN RSIDAFKDFV VASETSDCVV SSTLSPEKDS RVSVTKPFML PPVA
<b>Accession Number</b>	<a href="#">P21583</a>
<b>Purity</b>	>95% by SDS-PAGE and HPLC analyses
<b>Biological Activity</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using human TF-1 cells is less than 2.0 ng/ml, corresponding to a specific activity of >5.0 × 10 <sup>5</sup> IU/mg.
<b>Formulation</b>	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
<b>Storage/Handling</b>	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.
<b>Reconstitution</b>	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.