

# 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. Soluble canine SCF shares 76-93% amino acid sequence identity with many other species, including human, mouse, rat and equine. Cells known to express SCF include endothelial cells, fibroblasts and keratinocytes.

<b>Catalog Number</b>	<b>1420-01</b>
<b>Product Name</b>	<b>KITLG (SCF), Canine</b> Recombinant Canine KIT Ligand Stem Cell Factor, SCF Mast Cell Growth Factor, MGF, MCGF Familial Progressive Hyperpigmentation 2, FPH2
<b>Source</b>	<i>Escherichia coli</i>
<b>MW</b>	~18.4 kDa (165 amino acids)
<b>Sequence</b>	KGICGKRVT DDKVDVTKLVA NLPKDYKIAL KYVPGMDVLP SHCWISVMVE QLSVSLTDLL DKFSNISEGL SNYSIIDKLV KIVDDLVECT EGYSFENVKK APKSPELRLF TPEEFFRIFN RSIDAFKDLE TVASKSSECV VSSTLSPDKR SRVSVTKPFM LPPVA
<b>Accession Number</b>	<a href="#">P48749</a>
<b>Purity</b>	>96% 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.