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Kitl
Recombinant Mouse Stem Cell Factor

Catalog No.	CRS201A	**Quantity:**	2 µg
	CRS201B		10 µg
	CRS201C		1.0 mg

Alternate Names: Kit ligand, Hematopoietic growth factor KL, Mast cell growth factor, MGF, Steel factor, Stem cell factor, SCF, c-Kit ligand

Description: Stem cell factor (SCF) also known as 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*, SCF can stimulate the proliferation of mature, as well as the proliferation and maturation of immature, mast cells. On purified primitive human and mouse hematopoietic precursors, SCF acts in a synergistic manner with various growth factors, such as IL-1, IL-3, IL-6, IL-7, and Epo, to induce myeloid, erythroid and lymphoid lineage colony formation. While human SCF shows no activity on murine cells, murine and rat SCF are active on human cells.

UniProt ID: P20826

Gene ID: 17311

Source: *E. coli*

Molecular Weight: 18.4 kDa predicted (165 aa), monomer

Formulation: Lyophilized from sterile-filtered 20 mM sodium phosphate, pH 6.5

Purity: ≥ 95% by reducing and non-reducing SDS-PAGE

Endotoxin Level: ≤ 1 EU/µg as determined kinetic LAL analysis.

Biological Activity: ≤ 20 ng/ml, determined by the dose-dependent proliferation of human TF-1 cells.

Specific Activity: ≥ 5.0×10^4 U/mg

Amino Acid Sequence: MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVLC MEENAPKNIK ESPKRPETRS FTPEEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

Storage & Stability: Store as supplied at -20°C to -80°C for up to 1 year. Upon reconstitution, store at 2-8°C for upto 1 month or prepare working aliquots and store at -20°C to -80°C for up to 3 months. It is recommended that a carrier protein such as 0.1% HSA or BSA is added for long term storage. **Avoid repeated freeze-thaw cycles.**

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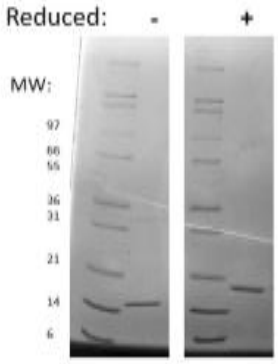
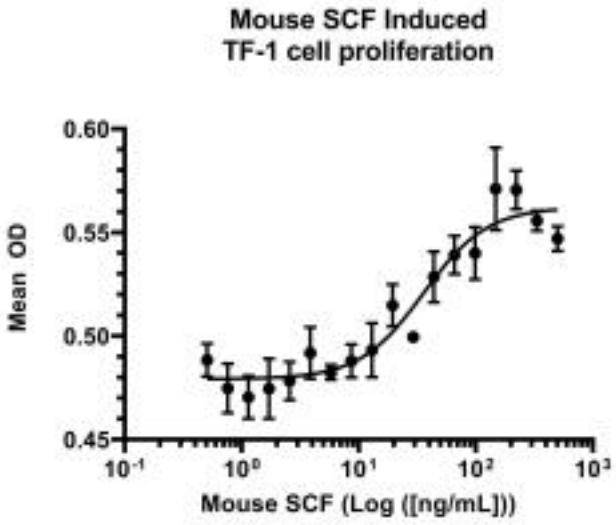


Mouse SCF Gel

Figure: 1 ug in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% Tris-Glycine gel, stained with Coomassie Blue. Mouse SCF has a predicted MW of 18.4 kDa.



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