

32-1744: mSCF Recombinant Protein

Alternative Name Kit ligand Precursor, C-kit ligand, SCF, Mast cell growth factor, MGF, SF, KL-1, Kitl, DKFZp686F2250, Hematopoietic growth factor KL, Steel factor.

Description

Source : Escherichia Coli. Stem Cell Factor Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18309 Dalton. The SCF is purified by proprietary chromatographic techniques. Stem cell factor / KIT ligand (SCF) is a cytokine which binds CD117(c-Kit). SCF is also known as 'steel factor' or 'c-kit ligand'. SCF exists in two forms, cell surface bound SCF and soluble (or free) SCF. Soluble SCF is produced by the cleavage of surface bound SCF by metalloproteases. SCF is a growth factor important for the survival, proliferation, and differentiation of hematopoietic stem cells and other hematopoietic progenitor cells. One of its roles is to change the BFU-E (burst-forming unit-erythroid) cells, which are the earliest erythrocyte precursors in the erythrocytic series, into the CFU-E (colony-forming unit-erythroid).

Product Info

Amount : 10 µg
Purification : Greater than 98.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.
Content : Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO₃.
Storage condition : Lyophilized KIT ligand although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution SCF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid : MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL
 LDKFSNISEG LSNYSIIDKL GKIVDDL VLC MEENAPKNIK ESPKRPETRS FTPEEFSIF
 NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA.

Application Note

It is recommended to reconstitute the lyophilized Stem Cell Factor in sterile 18MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. The ED₅₀ as determined by the dose-dependant stimulation of Human TF-1 cell line is < 10 ng/ml, corresponding to a Specific Activity of 1x10⁵ IU/mg.

