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SCF Mouse

Stem Cell Factor Mouse Recombinant
GRF0372

Product Overview

Name	SCF Mouse
Description	
Stem Cell Factor Mouse Recombinant	
Accession (Primary)	P20826
Synonyms	
Kit ligand Precursor, C-kit ligand, SCF, Mast cell growth factor, MGF, SF, KL-1, Kitl, DKFZp686F2250, Hematopoietic growth factor KL, Steel factor.	
Introduction	
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).	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO3.	
Stability	
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.	
Purity	
Greater than 98.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.	
Amino acid sequence	
MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL LDKFSNISEG	

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LSNYSIIDKL GKIVDDLVLC MEENAPKNIK ESPKRPETRS FTPEEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA.

Biological Activity

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 1x10 5 IU/mg.

Solubility

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.

References

1. Title : enhanced self -renewal of hematopoietic stem/progenitor cells mediated by the stem cell gene sall4. Publication : Link : SCF Mouse prospec publication 2. Title :Contribution of an Aged Microenvironment to Aging-Associated Myeloproliferative Disease Publication :Vas V, Wandhoff C, D?rr K, Niebel A, Geiger H (2012) Contribution of an Aged Microenvironment to Aging-Associated Myeloproliferative Disease. PLoS ONE 7(2): e31523. doi:10.1371/journal.pone.0031523 Link : Stem Cell Factor Mouse prospec publication

Protein content

Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.52 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of Stem Cell Factor as a Reference Standard.

Precautions

SCF Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P20826)