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SCF Mouse

Description: 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.

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

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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

Purity: Greater than 98.0% as determined by:(a) Analysis by SEC-HPLC.(b) Analysis by SDS-PAGE.

Formulation:
Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO3.

Stability:
Lyophilized KIT ligand althoμgh 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.

Usage:
NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drμgs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:
It is recommended to reconstitute the lyophilized Stem Cell Factor in sterile 18M-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

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).

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 1x105 IU/mg.

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References:

1.Title:enhanced self -renewal of hematopoietic stem/progenitor cells mediated by the stem cell gene sall4.Publication:Link:http://www.biomedcentral.com/content/pdf/1756-8722-4-38.pdf2.Title:Contribution of an Aged Microenvironment to Aging-Associated Myeloproliferative DiseasePublication:Vas V, Wandhoff C, Drr 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.0031523Link:http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0031523

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