DATA SHEET

RESEARCH USE ONLY
www.cellgs.com

GFH4AF Recombinant Human SCF (Animal-Free)

Description

Stem Cell Factor (SCF) is a cytokine made by fibroblasts and endothelial cells. SCF binds to the receptor c-Kit/CD117 and plays a critical role in the maintenance, survival, and differentiation of hematopoietic stem cells. Human SCF shows no activity on mouse cells, but mouse and rat SCF are active on human cells.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

Length	165 aa
Molecular Weight	18.6 kDa
Source	E. coli
Accession Number	P21583
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

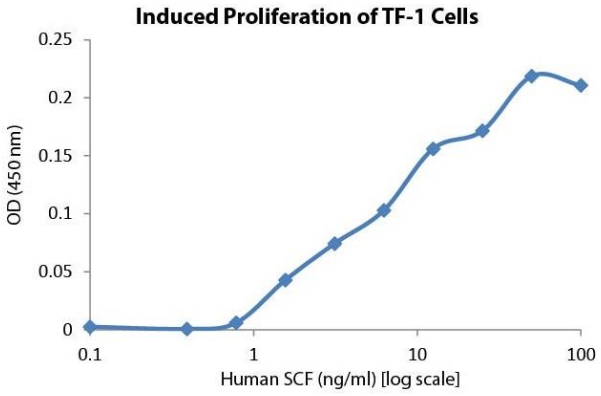
Specifications

Alternative Names	Stem Cell Factor, c-Kit Ligand, KL, steel factor, MGF
Biological Activity	Human SCF (Animal-Free) is fully biologically active when compared to standard. The activity is determined by the dose-dependent proliferation of TF-1 cells and it is typically less than 15 ng/ml. This corresponds to an expected specific activity of 6.6 x 10^4 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, 50 mM soldium chloride, pH 7.5
AA Sequence	MEGICRNRVT NNVKDVTKLV ANLPKDYMIT LKYVPGMDVL PSHCWISEMV VQLSDSLTDL LDKFSNISEG LSNYSIIDKL VNIVDDLVEC VKENSSKDLK KSFKSPEPRL FTPEEFFRIF NRSIDAFKDF VVASETSDCV VSSTLSPEKD SRVSVTKPFM LPPVA

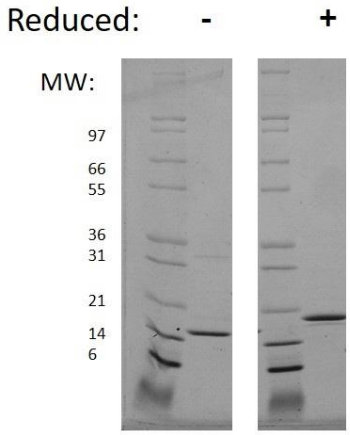
Preparation and Storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of TF-1 cells assay for Human SCF. Cell proliferation was measured to calculate the ED50, which is as expected less than 15 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 µg of protein was loaded in each lane. Human SCF has a predicted Mw of 18.6 kDa.