

# Recombinant mouse c-kit Ligand/SCF protein

Catalog Number: ATGP3345

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

26-189aa

### UniProt No.

P20826

### NCBI Accession No.

NP\_038626

### Alternative Names

Kit ligand, KITLG, Mast cell growth factor, MGF, Stem cell factor, SCF, c-Kit ligand, Steel factor, SF, Kitl, Hematopoietic growth factor KL, KL-1, Familial progressive hyperpigmentation 2, FPH2, SLF, blz, Gb, Grizzle-belly, SL

## PRODUCT SPECIFICATION

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### Molecular Weight

18 kDa (165aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using MC/9 mouse mast cells. The ED50 range  $\leq 7$ ng/ml.

### Tag

Non-Tagged

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

Stem Cell Factor (SCF) is a glycoprotein that plays a key role in hematopoiesis acting both as a positive and negative regulator, often in synergy with other cytokines. SCF binds to and activates the SCF receptor (SCFR), a receptor tyrosine kinase. SCF stimulates the proliferation of mast cells and is able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. It also mediates cell-cell adhesion and acts synergistically with other cytokine. Recombinant mouse SCF was expressed in *E. coli* and purified by conventional column chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

### Amino acid Sequence

MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVLK MEENAPKNIK ESPKRPETRS FTPEEFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA

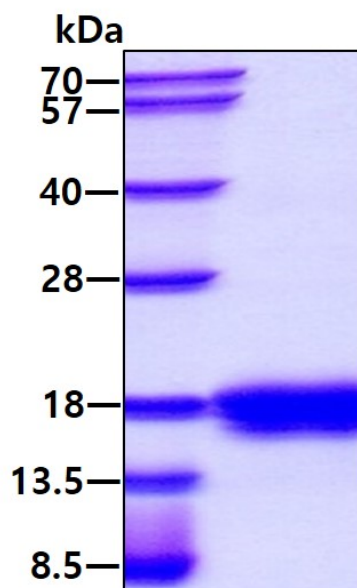
### General References

Zhang Z., et al. (2000). Proc. Natl. Acad. Sci. U.S.A. 97, 7732.

Okada S , et al. (1992). Nippon Rinsho , 50, 1872.

## DATA

### SDS-PAGE

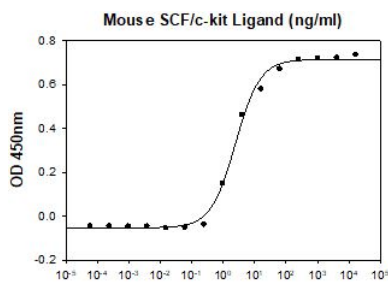


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

### Biological Activity

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Mouse SCF/c-kit Ligand stimulates cell proliferation of the MC/9 mouse mast cells. The ED50 range  $\leq 7$  ng/ml.