

## SCF Protein, Rat, Recombinant (HEK293, His)

### General Information

Synonyms:	steel factor;Mast cell growth factor;SLF;MGFSHEP7;SCFStem cell factor;SFC-Kit ligand;KL-1;KITLG;SCF;Kitl;MGF;KIT ligand;FPH2
Protein Construction:	Gln26-Ala189
Species:	Rat
Expression Host:	HEK293 Cells
Accession:	P21581
Molecular Weight:	23-40 KDa (reducing condition)
AA Sequence:	Gln26-Ala189

### QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 95% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

SCF/C-kit ligand is the ligand of the tyrosine-kinase receptor encoded by the KIT locus. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. Promotes phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. In phase I/II clinical studies administration of the combination of SCF

and G-CSF resulted in a two- to threefold increase in cells that express the CD34 antigen compared with G-CSF alone.

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