



PRODUCT DATA SHEET

Product: Stem Cell Factor, (recombinant rat)

Cat. No.: BC-294 (10 µg)

Synonyms:

Kit ligand precursor (C-kit ligand)
Stem cell factor (SCF)
Mastcell growth factor (MGF)
Hematopoietic growth factor KL

Description:

Recombinant Rat Stem Cell Factor (SCF) produced in *E. Coli* is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18,409 Dalton.

Amino Acid Sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Glu-Ile-Cys.

Origin:

Produced in *E. Coli*.

Format:

Sterile filtered white powder. Lyophilized from a 1 mg/mL solution in water containing 20 mM Tris (pH 7.5).

Purity:

Greater than 98.0% as determined by RP-HPLC, anion-exchange FPLC, reducing and non-reducing SDS-PAGE Silver Stained gel.
Dimers and aggregates: less than 1% as determined by silver-stained SDS-PAGE.

Endotoxin:

Less than 0.1 ng/µg (IEU/µg) of Recombinant Rat Stem Cell Factor.

Reconstitution:

Reconstitute the Recombinant Rat Stem Cell Factor in sterile 18MΩ-cm H₂O not less than 100 µg/mL, which can then be further diluted to other aqueous solutions.

Biological Activity:

Recombinant Rat Stem Cell Factor is fully biologically active when compared to standard. The ED50 is determined by the dose-dependant stimulation of the proliferation of human MO7e cells which is <10 ng/mL, corresponding to a specific activity of >1 x 10⁵ units/mg.

Storage:

Lyophilized Recombinant Rat Stem Cell Factor, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Recombinant Rat Stem Cell Factor 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). Avoid repeated freeze/thaw cycles.

Limitations:

For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:

No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.