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Recombinant Mouse Stem Cell Factor (rmSCF)

Catalog No.: PA1125XC

Quantity: 1 mg

Species: Mouse

Source: E. coli

Format: **Purity:** ›98% is greater than 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel. Endotoxin is less than. 0.1 ng/µg (IEU/µg) of Murine SCF.
Dimers / aggregates:
Less tha

Description: Recombinant murine SCF produced in E.Coli is a single, non-glycosylated polypeptide chain containing 164 amino acids and having a molecular mass of 18309 Dalton. The SCF is purified by proprietary chromatographic techniques. Format: rmSCF is supplied as sterile filtered white freeze-dried powder. It was lyophilized from a concentrated (1 mg/ml) solution in water containing 10 mM Sodium phosphate buffer pH = 6.5 . It is recommended to reconstitute the lyophilized rmSCF in sterile 18M-cm H2O not less than 100 µg/ml, which can then be further diluted with other aqueous solutions. Protein quantitation was carried out by: 1. UV spectroscopy at 280 nm using the absorbency value of 0.52 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of SCF as a Reference Standard.
Molecular weight: 18 kDa

Storage: Lyophilized Mouse SCF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rmSCF 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 avoid freeze-thaw cycles. Shelf life: one year from despatch.

General Readings:
1. Reduced stem cell factor links smooth myopathy and loss of interstitial cells of cajal in murine diabetic gastroparesis. Gastroenterology 2006 Mar;130(3):759-70
2. Bcl-2 reduced and fas activated by the inhibition of stem cell factor/KIT signaling in murine melanocyte precursors. J Invest Dermatol 2005 Jan;124(1):229-34
3. In vitro induction of inhibitory macrophage differentiation by granulocyte-macrophage colony-stimulating factor, stem cell factor and interferon-gamma from lineage phenotypes-negative c-kit-positive murine hematopoietic progenitor cells.
Immunol Lett 2004 Feb 15;91(2-3):221-7
4. E2a/Pbx1 induces the rapid proliferation of stem cell factor-dependent murine pro-T cells that cause acute T-lymphoid or myeloid leukemias in mice.

Mol Cell Biol 2004 Feb;24(3):1256-69
5. Enhanced antileukemic activity of allogeneic peripheral blood progenitor cell transplants following donor treatment with the combination of granulocyte colony-stimulating factor (G-CSF) and stem cell factor (SCF) in a murine transplantation model. Bone Marrow Transplant 2003 Jul;32(1):49-56
6. Increment of murine spermatogonial cell number by gonadotropin-releasing hormone analogue is independent of stem cell factor c-kit signal.
Biol Reprod 2003 Jun