

Recombinant Mouse Stem Cell Factor (SCF)

Catalog Number PMC2114 (10 µg), PMC2115 (25 µg), PMC2111 (100 µg)

Pub. No. MAN0004193 Rev. A.0

Product specifications

Lot number	See product label.
Molecular weight	18.5 kDa, 167 amino acid residues.
Purity	>95% as determined by SDS PAGE analysis.
Biological activity	ED ₅₀ <8.00 ng/mL, determined by the dose dependent proliferation of mouse MC/9 cells. Determine the optimal concentration for each specific application using an initial dose response assay.
Formulation	Lyophilized, carrier free.
Sterility	Filtered before lyophilization through a 0.22 micron sterile filter.
Endotoxin	<0.1 ng/µg
Production	Produced in <i>E. coli</i> and purified via sequential chromatography.
Reconstitution recommendation	Centrifuge the vial briefly, before opening to bring the contents to the bottom. Reconstitute the lyophilized protein in deionized water to 0.1–1.0 mg/mL to regain full activity. Apportion the reconstituted protein into working aliquots and store at ≤ –20°C. Make any further dilutions of the reconstituted protein in low endotoxin medium or buffered solution with FCS or tissue culture grade BSA.
Suggested working dilutions	The optimal concentration should be determined for each specific application.
Storage	Store the lyophilized protein at 2–8°C or –20°C for long term storage, preferably desiccated. Upon reconstitution, apportion into working aliquots and store at ≤ –20°C (not in a frost-free freezer). Avoid repeated freeze-thaw cycles.
Expiration date	Expires one year from date of receipt when stored as instructed.
References	Bagley, J, Tian, CR, Sachs, DH, and Iacomini, J. (2002) Induction of T-cell tolerance to an MHC class I alloantigen by gene therapy. <i>Blood</i> 99(12):4394-4399. Langley, KE, Wypych, J, Mendiaz, EA, Clogston, CL, Parker, VP, Farrar, DH, Brothers, MO, Satygal, VN, Leslie, I, Birkett, NC, et al. (1992) Purification and characterization of soluble forms of human and rat stem cell factor recombinantly expressed by <i>Escherichia coli</i> and by Chinese hamster ovary cells. <i>Arch. Biochem. Biophys.</i> 295(1):21-28. Robbins, P, Skelton, D, Yu, XJ, Halene, S, Leonard, E, and Kohn, D. (1998) Consistent, persistent expression from modified retroviral vectors in murine hematopoietic stem cells. <i>Proc. Nat'l. Acad. Sci.</i> 95(17):10182-10187. Williams, NS, Kubota, A, Bennett, M, Kumar, V, and Takei, F. (2000) Clonal analysis of NK cell development from bone marrow progenitors in vitro: orderly acquisition of receptor gene expression. <i>Eur. J. Immunol.</i> 30:2074-2082. Giver, CR, Wong, R, Moore, DH, and Pallavicini, MG. (2001) Persistence of aneuploid immature/primitive hemopoietic sub-populations in mice 8 months after benzene exposure in vivo. <i>Mutation Res.</i> 491:127-138. Taylor, MA, Chaudhary, PM, Klem, J, Kumar, V, Schatzle, JD, and Bennett, M. (2001) Inhibition of the death receptor pathway by cFLIP confers partial engraftment of MHC class I-deficient stem cells and reduces tumor clearance in perforin-deficient mice. <i>J. Immunol.</i> 167(8):4230-4237. Yan, F, Collector, MI, Tysko, S, and Sharkis, SJ. (2003) Using divisional history to measure hematopoietic stem cell self-renewal and differentiation. <i>Exp. Hematol.</i> 31(1):56-64.

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Explanation of Symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer		Catalog number		Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		



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