

Recombinant Human Stem Cell Factor (SCF)

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Catalog Number:	PHC2115	PHC2116	PHC2111	PHC2113
Quantity:	10 µg	25 µg	100 µg	1 mg
Lot Number:	See product label.			
Molecular Weight:	18.5 kDa			
Purity:	>95% as determined by SDS-PAGE analysis.			
Amino Acid Sequence:	EGICRNRVTN NVKDVTKLVA NLPKDYMITL KYVPGMDVLP SHCWISEMVV QLSDSLTDLL DKFSNISEGL SNYSIIDKLV NIVDDLVECV KENSSKDLKK SFKSPEPRLF TPEEFFRIFN RSIDAFKDFV VASETSDCVV SSTLSPEKDS RVSVTKPFML PPVA			
Biological Activity:	ED ₅₀ range = 2–10 ng/mL (Specific Activity: 5 × 10 ⁵ –1 × 10 ⁵ units/mg), determined by the dose dependent proliferation of human MO–7e cells. The optimal concentration for each specific application should be determined by an initial dose response assay.			
Formulation:	Lyophilized, carrier free.			
Sterility:	Filtered prior to lyophilization through a 0.22 micron sterile filter.			
Endotoxin:	<0.1 ng/µg			
Production:	Recombinant human SCF is produced in <i>E. coli</i> and purified via sequential chromatography.			
Reconstitution Recommendation:	We recommend that the vial be briefly centrifuged prior to opening to bring the contents to the bottom. Lyophilized human SCF should be reconstituted in sterile deionized water to 0.1–1.0 mg/mL to regain full activity. These stock solutions should be apportioned into working aliquots and stored at ≤–20°C. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA.			
Suggested Working Dilutions:	The optimal concentration should be determined for each specific application.			
Storage:	Lyophilized human SCF should be stored at 2 to 8°C, preferably desiccated. Store reconstituted human SCF at ≤–20°C (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.			
Expiration Date:	Expires one year from date of receipt when stored as instructed.			
References:	<p>Martin, F., et al. (1990) Primary structure and functional expression of rat and human stem cell factor DNAs. <i>Cell</i> 63(1):203–211.</p> <p>Nocka, K., et al. (1990) Candidate ligand for the c-kit transmembrane kinase receptor: KL, a fibroblast derived growth factor stimulates mast cells and erythroid progenitors. <i>EMBO J.</i> 9(10):3287–3294.</p> <p>deVries, P., et al. (1991) The effect of recombinant mast cell growth factor on purified murine hematopoietic stem cells. <i>J. Exp. Med.</i> 173(5):1205–1211.</p> <p>Anzai, N., et al. (2002) c-kit associated with the transmembrane 4 superfamily proteins constitutes a functionally distinct subunit in human hematopoietic progenitors. <i>Blood</i> 99(12):4413–4421.</p>			

Explanation of Symbols

The symbols present on the product label are explained below:

Symbol	Description
	Catalog Number
	Research Use Only
	Use by
	Manufacturer
	Without, does not contain
	Protect from light
	Directs the user to consult instructions for use (IFU), accompanying the product.

Symbol	Description
	Batch code
	In vitro diagnostic medical device
	Temperature limitation
	European Community authorized representative
	With, contains
	Consult accompanying documents

Limited Use Label License: Research Use Only

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For Research Use Only. Caution: Not for human or animal therapeutic or diagnostic use.

Manufactured under ISO 13485 Quality Standard

Manufacturing site: 7335 Executive Way | Frederick, MD 21704 | Toll Free in USA 800.955.6288

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