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#87318**Human SCF Recombinant Protein**

10 µg



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MW (kDa):	UniProt ID:	Entrez-Gene Id:
18.6	#P21583	4254
Background	Stem cell factor (SCF) is produced by endothelial cells, fibroblasts, keratinocytes, gut epithelial cells, and tumor cells (1,2). SCF is critical for hematopoiesis and mast cell differentiation and has additional roles in survival and function of other cell types (1). Some tumor cell proliferation and invasiveness are promoted by SCF (3). Tumor-derived SCF appears to be involved in expansion of myeloid-derived suppressor cells that in turn limits proliferation of tumor-infiltrating T cells (4). SCF may have additional roles in the tumor microenvironment (2). SCF is either soluble or an integral membrane protein and the form is dependent on variation in splicing or proteolytic release (1). SCF binds to the receptor tyrosine kinase c-Kit and induces activation of the Akt, Erk, JNK, and p38 pathways (5,6).	
Endotoxin	Endotoxin levels are less than or equal to 1 EU / 1 µg hSCF.	
Purity	A greater than or equal to 95% purity was determined by SDS-PAGE.	
Source / Purification	Recombinant human SCF was expressed in <i>E. coli</i> and is supplied in a lyophilized form.	
Bioactivity	The bioactivity of recombinant hSCF was determined in a TF-1 cell proliferation assay. The ED ₅₀ of each lot is less than or equal to 15 ng/ml.	
Background References	<ol style="list-style-type: none"> 1. Broudy, V.C. (1997) <i>Blood</i> 90, 1345-64. 2. Huang, B. et al. (2008) <i>Blood</i> 112, 1269-79. 3. Yasuda, A. et al. (2006) <i>Mol Cancer</i> 5, 46. 4. Pan, P.Y. et al. (2008) <i>Blood</i> 111, 219-28. 5. Samayawardhena, L.A. and Pallen, C.J. (2008) <i>J Biol Chem</i> 283, 29175-85. 6. Huang, H.M. et al. (2000) <i>Blood</i> 96, 1764-71. 	

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