

## SCF Protein, Human (P.pastoris)

Cat. No.:	HY-P7056
Synonyms:	rHuSCF; Hematopoietic growth factor KL; MGF; Mast Cell Growth Factor
Species:	Human
Source:	P. pastoris
Accession:	P21583-1 (E26-A189)
Gene ID:	4254
Molecular Weight:	Approximately 18.6 kDa

### PROPERTIES

AA Sequence	<pre> E G I C R N R V T N   N V K D V T K L V A   N L P K D Y M I T L   K Y V P G M D V L P S H C W I S E M V V   Q L S D S L T D L L   D K F S N I S E G L   S N Y S I I D K L V N I V D D L V E C V   K E N S S K D L K K   S F K S P E P R L F   T P E E F F R I F N R S I D A F K D F V   V A S E T S D C V V   S S T L S P E K D S   R V S V T K P F M L P P V A           </pre>
Biological Activity	The ED <sub>50</sub> is <2 ng/mL as measured by human TF-1 cells, corresponding to a specific activity of 5 × 10 <sup>5</sup> units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 10 mM acetic acid.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years from date of receipt. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

Background	The recombinant human stem cell factor (rhSCF) protein specifically enhances the viability of human myeloid leukemia cell line TF-1 and the proliferation and maturation of human mast cell line LAD2 cell. Recombinant human SCF (rhSCF) can maintain hematopoietic stem cells and mast cell in culture, and it is widely tested in research into differentiation from embryonic stem cell (ESC)/induced pluripotent stem cell (iPSC) <sup>[1]</sup> .
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## REFERENCES

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[1]. Akuta T, et al. Expression of bioactive soluble human stem cell factor (SCF) from recombinant Escherichia coli by coproduction of thioredoxin and efficient purification using arginine in affinity chromatography. Protein Expr Purif. 2015 Jan;105:1-7.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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