

Rev03  
Update: Dec,14,2021

**DATASHEET**

# SCF, Human (P. pastoris-expressed)

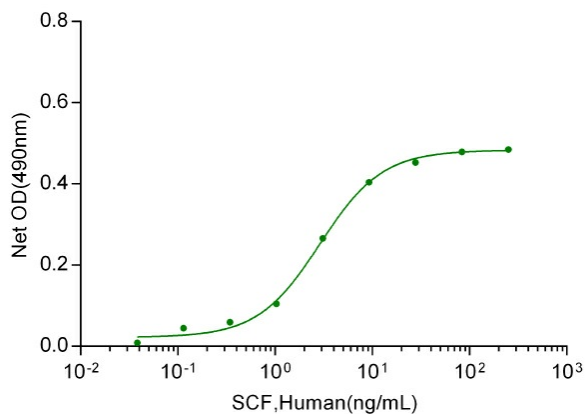
Cat. No.: Z02692

## Product Introduction

<b>Species</b>	Human
<b>Protein Construction</b>	Expressed with an N-terminal Met. <b>SCF (Glu26-Ala189) Accession # P21583-1</b>
<b>Purity</b>	> 95% as analyzed by SDS-PAGE
<b>Endotoxin Level</b>	< 1 EU/ $\mu$ g of protein by gel clotting method
<b>Biological Activity</b>	The ED <sub>50</sub> , as determined by the dose-dependent stimulation of human TF-1 cells, is < 2.0 ng/ml, corresponding to a specific activity of $5 \times 10^5$ IU/mg.
<b>Expression System</b>	P. pastoris
<b>Apparent Molecular Weight</b>	~20 kDa, on SDS-PAGE under reducing conditions.
<b>Formulation</b>	Lyophilized after extensive dialysis against 10 mM acetic acid.
<b>Reconstitution</b>	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O up to 100 $\mu$ g/ml.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

## Examples

ED<sub>50</sub> < 2 ng/ml, as determined by the dose-dependent stimulation of human TF-1 cells, corresponding to a specific activity of  $5 \times 10^5$  IU/mg.



## Background

**Target Background :** Stem cell factor (also known as SCF, KIT-ligand, KL, or steel factor) is a cytokine that binds to the c-KIT receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. It stimulates the proliferation of myeloid, erythroid, and lymphoid progenitors in bone marrow cultures and has been shown to act synergistically with colony stimulating factors. SCF plays an important role in the hematopoiesis during embryonic development. SCF can regulate HSCs in the stem cell niche in the bone marrow. SCF has been shown to increase the survival of HSCs in vitro and contributes to the self-renewal and maintenance of HSCs in-vivo.

**Synonyms :** Kit ligand; C-Kit Ligand; Mast Cell Growth Factor; MGF; Steel Factor; Stem cell factor

**For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.**