

## Recombinant Human SCF

Cat No:HR2R1944

For research use only

### Overview

|                    |   |
|--------------------|---|
| Quantity           | 10 x 100 µg (Z100817 x 10)  |
| Gene Symbol        | KITLG   |
| Gene ID            | 4254  |
| Accession          | P21583  |
| Alternative Name   | SCF, Kit ligand, Mast cell growth factor, MGF, c-Kit Ligand, KITLG  |
| Species            | Human   |
| Source             | E. coli   |
| Description        | <p>SCF is a stromal cell-derived cytokine synthesized by fibroblasts and other cell types. SCF promotes proliferation and early differentiation of cells at the level of multipotential stem cells. It has been suggested that SCF is essential for optimal production of various hematopoietic lineages, mainly because of its ability to prevent apoptosis when it co-stimulates with other cytokines. The receptor for SCF, designated SCFR(CD117), is the oncogene designated as KIT. The biological activities of SCF are synergised considerably by colony stimulating factors GM-CSF and G-CSF, and also by IL-7, Epo and some other growth and differentiation factors. In combination with IL-7, SCF stimulates the proliferation of pre-B cells. SCF is also a potent chemoattractant for cells (see also: Chemotaxis), for example, mast cells expressing the kit receptor. One response to SCF in these cells is a characteristic rearrangement of the actin filaments of the cytoskeleton.</p> |
| Functions          | The ED(50) was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is 2.0 ng/mL, corresponding to a specific activity of 5.0 x 10 <sup>5</sup> units/mg.  |
| Formulation        | Recombinant SCF was lyophilized from a 0.2 µm filtered solution in PBS pH 7.0.  |
| Solubility         | A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.  |
| Appearance         | Lyophilized Powder  |
| Molecular Weight   | 18.7  |
| Purity             | >95% as determined by SDS-PAGE  |
| Concentration      | <1.0 EU/µg of recombinant protein as determined by the LAL method.  |
| Shipping Condition | Ambient Temperature   |

Storage  
Condition

The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2° - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

