

## Product Datasheet

### Human SCF Protein (orb1496171)

**Catalog Number** orb1496171

**Category** Proteins

**Description** Stem Cell Factor is also known as SCF, kit-ligand, KL, steel factor, KITLG, FPH2, KL-1, Kitl, MGF, SCF, SF, or SHEP7, and is a cytokine that binds to the c-Kit receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. This cytokine plays an important role in hematopoiesis (formation of blood cells), spermatogenesis, and melanogenesis. The soluble and transmembrane forms of the protein are formed by alternative splicing of the same R transcript. Soluble and transmembrane SCF is produced by fibroblasts and endothelial cells. Soluble SCF has a molecular weight of 18, 5 KDa and forms a dimer. SCF plays an important role in the hematopoiesis during embryonic development. Sites where hematopoiesis takes place, such as the fetal liver and bone marrow, all express SCF. During development, the presence of the SCF also plays an important role in the localization of melanocytes, cells that produce melanin and control pigmentation. SCF plays a role in the regulation of HSCs in the stem cell niche in the bone marrow. SCF may be used along with other cytokines to culture HSCs and hematopoietic progenitors. The expansion of these cells ex-vivo (outside the body) would allow advances in bone-marrow transplantation, in which HSCs are transferred to a patient to re-establish blood formation.

**Target** SCF

**Conjugation** Unconjugated

**Tag** Native

**Reactivity** Human

**Form/Appearance** Powder

**Buffer/Preservatives** PBS, pH 7.4

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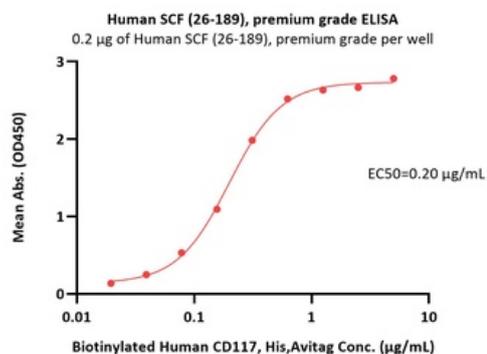
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**Purity** 95%**UniProt ID** **P21583****MW** 18.5 kDa**Application notes** This protein carries no "tag". The protein has a calculated MW of 18.5 kDa. The protein migrates as 30 kDa $\pm$ 3 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.**Expression System** HEK293**Endotoxins** 0.01 EU per  $\mu$ g**Expression Region** Glu 26 - Ala 189**Storage** -20°C to -70°C for 12 months in lyophilized state;. -70°C for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20°C or lower**Note** For research use only

Immobilized Human SCF (26-189), premium grade (Cat. No. orb1496171) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Biotinylated Human CD117, His, Avitag with a linear range of 0.005-0.3  $\mu$ g/mL (QC tested).

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