



# Recombinant Protein Technical Manual

**Recombinant Mouse SCF/c-Kit Ligand Protein  
(Active)**  
RPES3089

## Product Data:

**Product SKU:** RPES3089

**Size:** 10µg

**Species:** Mouse

**Expression host:** E. coli

**Uniprot:** P20826

## Protein Information:

**Molecular Mass:** 18.4 kDa

**AP Molecular Mass:** 16 kDa

### Tag:

**Bio-activity:** Measured by the dose-dependent stimulation of TF cells. The ED50 for this effect is 42 ng/ml.

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Cell Culture

**Synonyms:** FPH2; KIT ligand; Kitl; KITLG; KL; Mast cell growth factor; MGF; MGFSHEP7; SCF; Stem cell factor; SFC-Kit ligand; SLF; steel factor; Hematopoietic growth factor KL

## Immunogen Information:

**Sequence:** Lys26-Ala189

## Background:

Mouse stem cell factor (SCF), is the ligand for the receptor-type protein-tyrosine kinase KIT. It plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. It also promotes phosphorylation of PIK3R1, which is the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG/SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG/SCF and KIT promote activation of STAT family members STAT1, STAT3 and STAT5.