



# Recombinant Protein Technical Manual

**Recombinant Mouse c-kit/CD117 Protein (Fc Tag)(Active)**  
RPES1501

## Product Data:

**Product SKU:** RPES1501

**Size:** 50µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** NP\_001116205.1

## Protein Information:

**Molecular Mass:** 82.5 kDa

**AP Molecular Mass:** 10010 kDa

**Tag:** C-Fc

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized mouse KITL at 2 µg/ml (100 µl/well) can bind mouse KIT / CD117 with a linear ranger of 1.28-32 ng/ml.

**Purity:** > 90 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein 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 sterile PBS, pH 7.4

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

**Application:** Functional ELISA

**Synonyms:** Bs;c-KIT;CD117;Fdc;Gsfsc01;Gsfsc05;Gsfso3;SCO1;SCO5;SOW3;Ssm;Tr-kit;W

## Immunogen Information:

**Sequence:** Met 1-Thr 523

## Background:

C-Kit is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). c-Kit contains 5 Ig-like C2-type (immunoglobulin-like) domains, and 1 protein kinase domain. It belongs to the protein kinase superfamily, tyr protein kinase family and CSF/PDGF receptor subfamily. C-Kit contains 5 Ig-like C2-type (immunoglobulin-like) domains and 1 protein kinase domain. C-Kit has a tyrosine-protein kinase activity. Binding of the ligands leads to the autophosphorylation of KIT and its association with substrates such as phosphatidylinositol 3-kinase. Antibodies to c-Kit are widely used in immunohistochemistry to help distinguish particular types of tumour in histological tissue sections. It is used primarily in the diagnosis of GISTs. In GISTs, c-Kit staining is typically cytoplasmic, with stronger accentuation along the cell membranes. C-Kit antibodies can also be used in the diagnosis of mast cell tumours and in distinguishing seminomas from embryonal carcinomas. Mutations in c-Kit gene are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukemia, and piebaldism. Defects in KIT are a cause of acute myelogenous leukemia (AML). AML is a malignant disease in which hematopoietic precursors are arrested in an early stage of development. Note=Somatic mutations that lead to constitutive activation of KIT are detected in AML patients.