

## Recombinant Human c-KIT/CD117 Protein (aa 540-972, His & GST Tag)

Catalog No. PKSH030938

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

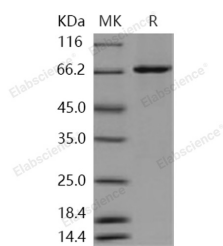
### Description

<b>Synonyms</b>	Mast/stem cell growth factor receptor Kit;SCFR;Piebald trait protein;PBT;Proto-oncogene c-Kit;Tyrosine-protein kinase Kit;p145 c-kit;v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog;CD117;PBT
<b>Species</b>	Human
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Thr 540-Val 972
<b>Accession</b>	P10721-2
<b>Calculated Molecular Weight</b>	76.8 kDa
<b>Observed molecular weight</b>	68 kDa
<b>Tag</b>	N-His-GST
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 92 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 20% glycerol, 3mM DTT Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 92 % as determined by reducing SDS-PAGE.

### For Research Use Only

## 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-1/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.

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