

# Human c-Kit(CD117) Protein; hFc Tag

## Product Information

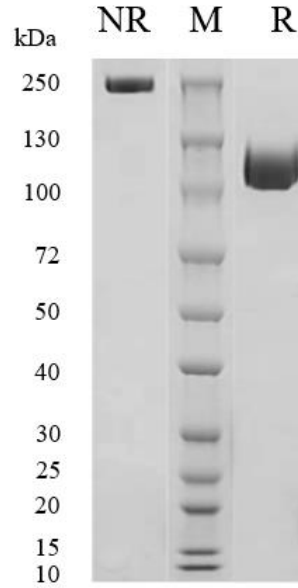
<b>Product Name</b>	Human c-Kit(CD117) Protein; hFc Tag
<b>Storage temp.</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-87119RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-87119RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	CD117,SCFR,c-kit,KIT
<b>Source</b>	Human c-Kit(CD117) Protein; hFc Tag (GM-87119RP) is expressed from human 293 cells (HEK-293). It contains AA Gln 26 - Thr 516 (Accession # P10721-2). This protein carries a hFc tag at the C-terminus.
<b>Purity</b>	> 95% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	79.4 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.4.
<b>Description</b>	<p>The c-kit protein, also known as CD117, is a transmembrane receptor tyrosine kinase and an important cell surface receptor protein. It is encoded by the c-kit gene and is a type of stem cell factor receptor. The c-kit protein is widely expressed in various cell types, including hematopoietic stem cells, neurons, macrophages, and germ cells.</p> <p>The c-kit protein plays an important role in cellular biological processes, primarily by binding with its ligand stem cell factor (SCF) to regulate cell proliferation, differentiation, migration, and survival. When SCF binds to the c-kit protein, it activates the tyrosine kinase activity of the c-kit protein, thereby activating multiple signaling pathways such as MAPK, PI3K/AKT, and JAK/STAT, influencing cell functions.</p> <p>In tumors, the c-kit protein also plays a significant role. Many tumor cells express the c-kit protein, particularly in gastrointestinal stromal tumors (GIST) and chronic myeloid leukemia (CML). Therefore, the c-kit protein has become an important marker for tumor diagnosis and treatment. Targeted therapy drugs against the c-kit protein, such as Imatinib, have been widely used to treat c-kit-positive tumors.</p>

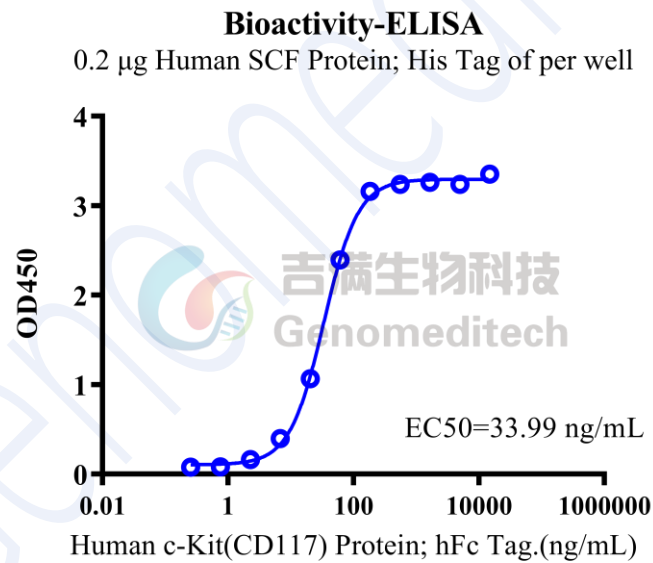
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## SDS-PAGE



On SDS-PAGE under non-reducing (NR) condition and reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

## Bioactivity-ELISA



Human SCF Protein; His Tag (Catalog # GM-87651RP) was immobilized at 2  $\mu$ g/ml (100  $\mu$ L/well). Increasing concentrations of Human c-Kit(CD117) Protein; hFc Tag (Catalog # GM-87119RP) were added.