

HUMAN CD117 PROTEIN, HIS TAG

Cat.#: 11321

Product Name: Human CD117 Protein

Size: 10 µg, 50 µg and 100 µg

Synonyms: C-Kit;CD117;MASTC;PBT;SCFR;KIT

Target: CD117

UNIPROT ID: P10721

Description: Recombinant human CD117 protein with C-terminal 6xHis tag

Background: This gene encodes a receptor tyrosine kinase. This gene was initially identified as a homolog of the feline sarcoma viral oncogene v-kit and is often referred to as proto-oncogene c-Kit. The canonical form of this glycosylated transmembrane protein has an N-terminal extracellular region with five immunoglobulin-like domains, a transmembrane region, and an intracellular tyrosine kinase domain at the C-terminus. Upon activation by its cytokine ligand, stem cell factor (SCF), this protein phosphorylates multiple intracellular proteins that play a role in the proliferation, differentiation, migration and apoptosis of many cell types and thereby plays an important role in hematopoiesis, stem cell maintenance, gametogenesis, melanogenesis, and in mast cell development, migration and function. This protein can be a membrane-bound or soluble protein. Mutations in this gene are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukemia, and piebaldism. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2020]

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 56.5 kDa after removal of the signal peptide. The apparent molecular mass of CD117-His is approximately 70-100 kDa due to glycosylation.

Molecular Characterization: CD117(Gln26-Thr520) 6xHis tag

Purity: The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

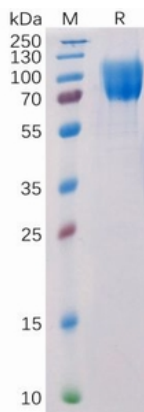


Figure 1. Human CD117 Protein, His Tag on SDS-PAGE under reducing condition.

Human CD117, His tagged protein ELISA

0.2 μ g of Human CD117, His tagged protein per well

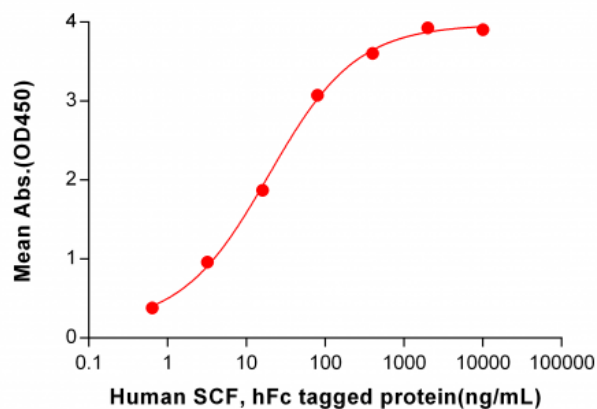


Figure 2. ELISA plate pre-coated by 1 μ g/ml (100 μ l/well) Human CD117, His tagged protein (11321) can bind Human SCF, hFc tagged protein 11364 in a linear range of 3.2-400 ng/ml.

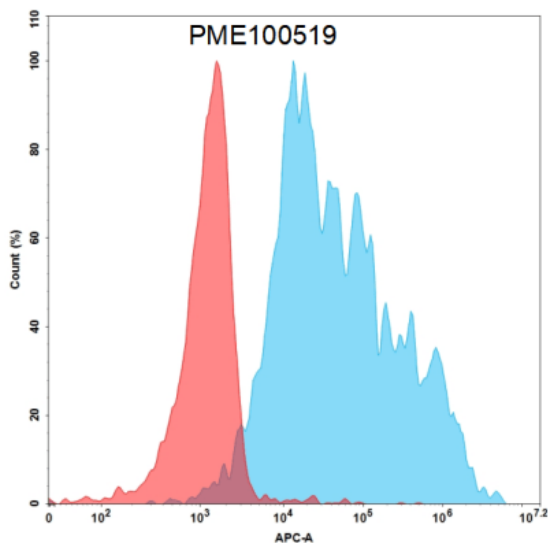


Figure 3. Flow cytometry analysis with 15 μ g/ml Human CD117 Protein, His tag (11321) on Expi293 cells transfected with human SCF (Blue histogram) or Expi293 transfected with irrelevant protein (Red histogram).