Active Recombinant Human CD117 Protein, Fctagged

Cat. No. KIT-61H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CD117 dimer protein contains a CD117 extracellular domain (UniProt# P10721) fused with a proprietary cis-dimer motif followed by a Fc tag at the C-terminus.
Species	Human
Source	HEK293T
ProteinLength	25-524 aa
Description	Human cluster of differentiation 117 (CD117), is a member of the Type III receptor tyrosine kinase family. CD117 is also known as KIT, C-Kit, mast/stem cell growth factor receptor (SCFR), KIT proto-oncogene receptor tyrosine kinase, and MASTC. CD117 contains an extracellular domain with five immunoglobulin-like loops, a transmembrane domain, a juxtamembrane domain, and an intracellular domain. CD117 is a Type I transmembrane protein, expressed on hematopoietic stem cells, mast cells, melanocytes, germ cells, and interstitial cells of Cajal. CD117 exists as a monomer under normal physiological conditions. Upon binding to its natural ligand, stem cell factor (SCF), homodimerization occurs between two CD117 monomers; this homodimerization is essential for its activation. However, oncogenic mutations can cause ligand-independent pathological dimerization and constitutive activation. CD117 is frequently overexpressed or dysregulated in cancers, including gastrointestinal stromal tumors, acute myeloid leukemia, melanoma, and small cell lung cancer. CD117 is a promising drug target, especially in precision oncology and regenerative medicine. Understanding

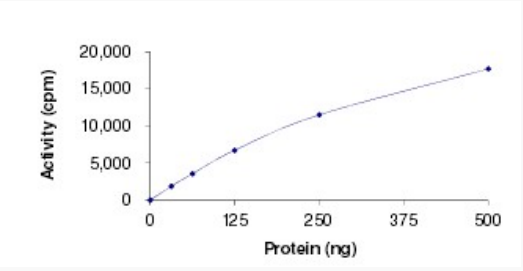
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Email: info@creative-biomart.com Fax: 1-631-938-8127
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	CD117 dimerization and its activation is crucial for developing targeted therapeutics.
Molecular Mass	165 kDa
Homodimer/Heterodimer	Homodimer
Purity	Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition
Application	Verified Applications: ELISA for CD117-specific antibody and stem cell factor (SCF) ligand protein binding assays. Suggested Applications: SPR & BLI for CD117-specific antibody and SCF protein binding assays. Animal immunization, RUO.
Storage	At -80 centigrade
Storage Buffer	0.22μm filtered PBS, pH 7.4
Shipping	Frozen Dry Ice

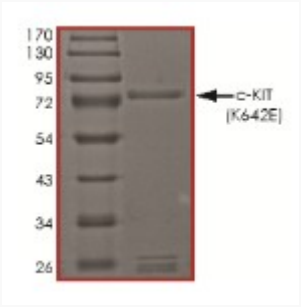
GENE INFORMATION

Gene ID	3815
Gene Name	KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog [Homo sapiens (human)]
Official Symbol	3815
Synonyms	KIT; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; PBT,

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	piebald trait; mast/stem cell growth factor receptor Kit; C Kit; CD117; SCFR; p145 c-kit; proto-oncogene c-Kit; piebald trait protein; soluble KIT variant 1; tyrosine-protein kinase Kit; proto-oncogene tyrosine-protein kinase Kit; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene-like protein; PBT; C-Kit;
mRNA Refseq	NM_000222
Official Symbol 2	KIT
Gene ID 2	3815
Gene Name 2	KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog [Homo sapiens (human)]
mRNA Refseq 2	NM_000222
Protein Refseq 2	NP_000213
MIM 2	164920
UniProt ID 2	P10721
Bioactivity-Antibody Binding	 Immobilized human CD117 protein dimer, Fc Tag at 2 μg/mL (100 μL/well) can

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	bind anti-human CD117 monoclonal antibody, with half maximal effective concentration (EC50) range of 2.5-10.2 ng/mL (QC tested).
Bioactivity-Ligand Binding	 Immobilized human Stem Cell Factor at 2 μg/mL (100 μL/well) can bind human CD117 dimer protein, Fc Tag, with half maximal effective concentration (EC50) range of 37.5-150.2 ng/mL (QC tested).
SDS-PAGE	MW: Molecular Weight marker reduced condition NR: CD117 dimer under non-reduced condition

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