Active Recombinant Rhesus macaque CD117 Protein, His&Avi tagged

Cat. No. KIT-64R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CD117 protein dimer contains a CD117 extracellular domain (UniProt# F6V858) fused with a proprietary cis-dimer motif followed by a tandem His-Avi tag at the C-terminus.
Species	Rhesus macaque
Source	HEK293T
ProteinLength	25-524 aa
Description	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 1 transmembrane protein, expressed on hematopoietic stem cells, mast cells, melanocytes, germ cells, and interstitial cells of Cajal. CD117 exists as a monomer under normal physical 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 human cancers, including gastrointestinal stromal tumors, acute myeloid

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	leukemia, melanoma, and small cell lung cancer. CD117 is a promising drug target, especially in precision oncology and regenerative medicine. The CD117 protein is highly homologous between non-human primates (NHPs) and humans. Understanding CD117 dimerization and its activation is crucial for developing targeted therapeutics.
Molecular Mass	132 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	696759
Gene Name	KIT KIT proto-oncogene, receptor tyrosine kinase [Macaca mulatta (Rhesus monkey)]

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Official Symbol	696759
Synonyms	KIT; KIT proto-oncogene, receptor tyrosine kinase; mast/stem cell growth factor receptor Kit; Mast/stem cell growth factor receptor; EC 2.7.10.1
mRNA Refseq	NM_001266095
Official Symbol 2	KIT
Gene ID 2	696759
Gene Name 2	KIT KIT proto-oncogene, receptor tyrosine kinase [Macaca mulatta (Rhesus monkey)]
mRNA Refseq 2	NM_001266095
Protein Refseq 2	NP_001253024
UniProt ID 2	F6V858
Bioactivity-Antibody Binding	Immobilized Rhesus macaque CD117 protein dimer, His-Avi Tag at 2 μg/mL (100 μL/well) can bind anti-non-human primate CD117 polyclonal antibody, with half maximal effective concentration (EC50) range of 27-107.8 ng/mL (QC tested).
Bioactivity-Ligand Binding	Immobilized human stem cell factor (SCF) at 2 μg/mL (100 μL/well) can bind Rhesus macaque CD117 protein dimer, His-Avi Tag with half maximal effective concentration (EC50) range of 8.1-32.5 ng/mL (QC tested).

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SDS-PAGE	MW: Molecular Weight marker reduced condition NR: CD117 dimer under non-reduced condition

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