

Active Recombinant Mouse CD117 Protein, His&Avi tagged

Cat. No. KIT-63M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CD117 protein dimer contains a CD117 extracellular domain (UniProt# P05532) fused with a proprietary cis-dimer motif followed by a tandem His-Avi tag at the C-terminus.
Species	Mouse
Source	HEK293T
ProteinLength	25-527 aa
Description	Mouse 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 leukemia, melanoma, and small cell lung cancer. CD117 is a promising drug

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

	target, especially in precision oncology and regenerative medicine. 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. SPR for CD117 and stem SCF ligand protein binding assays Suggested Applications: 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	16590
Gene Name	Kit kit oncogene [Mus musculus (house mouse)]
Official Symbol	16590
Synonyms	KIT; kit oncogene; mast/stem cell growth factor receptor Kit; SCFR; belly-spot;

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	dominant spotting; proto-oncogene c-Kit; spotted sterile male; Steel Factor Receptor; Dominant white spotting; tyrosine-protein kinase Kit; c-kit proto-oncogene protein; proto-oncogene tyrosine-protein kinase Kit; W; Bs; Fdc; Ssm; SCO1; SCO5; SOW3; CD117; c-KIT; Tr-kit; Gsfsc01; Gsfsc05; Gsfscow3;
mRNA Refseq	NM_001122733
Official Symbol 2	Kit
Gene ID 2	16590
Gene Name 2	Kit kit oncogene [Mus musculus (house mouse)]
mRNA Refseq 2	NM_001122733
Protein Refseq 2	NP_001116205
UniProt ID 2	P05532

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