

Recombinant Dog KIT Protein, His-tagged

Cat. No. KIT-2364D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Dog KIT Protein (Gln28-Pro527) with a N-His tag was expressed in E. coli.
Species	Dog
Source	E.coli
ProteinLength	Gln28-Pro527
Description	Tyrosine-protein kinase that acts as cell-surface receptor for the cytokine KITLG/SCF and plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. In response to KITLG/SCF binding, KIT can activate several signaling pathways. Phosphorylates PIK3R1, PLCG1, SH2B2/APS and CBL. Activates the AKT1 signaling pathway by phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase. Activated KIT also transmits signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. Promotes activation of STAT family members STAT1, STAT3, STAT5A and STAT5B. Activation of PLCG1 leads to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. KIT signaling is modulated by protein phosphatases, and by rapid internalization and degradation of the receptor. Activated KIT promotes phosphorylation of the protein phosphatases PTPN6/SHP-1 and PTPRU, and of the transcription factors STAT1, STAT3, STAT5A and STAT5B. Promotes phosphorylation of PIK3R1, CBL, CRK

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	(isoform Crk-II), LYN, MAPK1/ERK2 and/or MAPK3/ERK1, PLCG1, SRC and SHC1.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 59.7 kDa Accurate Molecular Mass: 57 kDa
Endotoxin	<1.0 EU per 1g (determined by the LAL method).
Purity	> 80%
Applications	Positive Control; Immunogen; SDS-PAGE; WB.
Stability	The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 centigrade for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Storage Buffer	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	KIT KIT proto-oncogene, receptor tyrosine kinase [<i>Canis lupus familiaris</i> (dog)]
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Official Symbol	KIT
Synonyms	KIT; KIT proto-oncogene, receptor tyrosine kinase; PBT; SCFR; C-Kit; CD117; MASTC; mast/stem cell growth factor receptor Kit c-Kit protooncogene p145 c-kit piebald trait protein proto-oncogene c-Kit proto-oncogene tyrosine-protein kinase Kit tyrosine-protein kinase Kit v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene-like protein EC 2.7.10.1
Gene ID	403811
mRNA Refseq	NM_001003181
Protein Refseq	NP_001003181
UniProt ID	O97799



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