

Mouse CD117,c-kit ELISA Kit

Catalog No: #EK5756

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Description

Product Name	Mouse CD117,c-kit ELISA Kit
Specificity	Mouse
Crossing Reactivity	There is no detectable cross-reactivity with other relevant proteins.
Immunogen Type	NSO,S25-P527
Other Names	Mast,stem cell growth factor receptor Kit; SCFR; 2.7.10.1; Proto-oncogene c-Kit; Tyrosine-protein kinase Kit; CD117; Kit; Sl;
Accession No.	P05532
Uniprot	P05532
GeneID	16590;
Cell Localization	Isoform 1: Cell membrane; Single-pass type Imembrane protein.

Application Details

sensitivity:10pg mlDetect Range:156pg ml-10000pg mlsample_type:cell culture supernates cell lysates tissue homogenates serum and plasma (heparin EDTA).capture_antibody:monoclonal antibody from ratdetection_antibody:polyclonal antibody from goatgene_name:Kitprotein_name:Mast stem cell growth factor receptor Kitgene_full_name:Mast stem cell growth factor receptor Kittissue_specificity: Isoform 1 and isoform 2 are detected in bonemarrow cells spermatogonia and spermatocytes but not in roundspermatids elongating spermatids and spermatozoa. Isoform 3 isdetected in round spermatids elongating spermatids andspermatozoa but not in spermatogonia and spermatocytes (atprotein level). Isoform 1 is widely expressed and detected infetal liver and bone marrow. Isoform 3 is detected in bone marrowcells enriched in hematopoietic stem cells..sequence_similarities:tmb_incubation:15-20minresearch_category:

Product Description

Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse CD117,c-kit

Background

protein_function: Tyrosine-protein kinase that acts as cell-surfacerceptor for the cytokine KITLG,SCF and plays an essential role inthe regulation of cell survival and proliferation, hematopoiesis,stem cell maintenance, gametogenesis, mast cell development,migration and function, and in melanogenesis. In response toKITLG,SCF binding, KIT can activate several signaling pathways.Phosphorylates PIK3R1, PLCG1, SH2B2,APS and CBL. Activates theAKT1 signaling pathway by phosphorylation of PIK3R1, theregulatory subunit of phosphatidylinositol 3-kinase. Activated KITalso transmits signals via GRB2 and activation of RAS, RAF1 andthe MAP kinases MAPK1,ERK2 and,or MAPK3,ERK1. Promotes activationof STAT family members STAT1, STAT3, STAT5A and STAT5B. Activationof PLCG1 leads to the production of the cellular signalingmolecules diacylglycerol and inositol 1,4,5-trisphosphate. KITsignaling is modulated by protein phosphatases, and by rapidinternalization and degradation of the receptor. Activated KITpromotes phosphorylation of the protein phosphatases PTPN6,SHP-1and PTPRU, and of the transcription factors STAT1, STAT3, STAT5Aand STAT5B. Promotes phosphorylation of PIK3R1, CBL, CRK (isoformCrk-II), LYN, MAPK1,ERK2 and,or MAPK3,ERK1, PLCG1, SRC and SHC1..SCFR(Mast,stem cell growth factor receptor), also known as proto-oncogene c-Kit or tyrosine-protein kinase Kit or CD117, is a protein that in humans is encoded by the KIT gene. KIT was first described as the cellular homolog of the feline sarcoma viral oncogene v-kit. The KIT gene is mapped on 4q12. Kit was expressed on the surface of germ cells up to the pachytene stage. Signaling from the KIT receptor tyrosine kinase is essential for primordial germ cell growth both in vivo and in vitro. Determination of the KIT effectors acting in primordial germ cells has been hampered by the lack of effective methods to manipulate easily gene expression in these cells.

Note: This product is for in vitro research use only