ARG22138
anti-CD117 / c-Kit antibody [kit2c75]

Package: 250 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [kit2c75] recognizes CD117 / c-Kit
Tested Reactivity	Chk
Tested Application	FACS
Specificity	Chicken c-Kit
Host	Mouse
Clonality	Monoclonal
Clone	kit2c75
Isotype	IgG2a, kappa
Target Name	CD117 / c-Kit
Species	Chicken
Immunogen	Sp/chkit4A4 cells (Sp2/0 cells transfected with Chicken c-Kit cDNA)
Conjugation	Un-conjugated
Alternate Names	PBT; C-Kit; Tyrosine-protein kinase Kit; CD antigen CD117; Mast/stem cell growth factor receptor Kit; CD117; Proto-oncogene c-Kit; SCFR; Piebald trait protein; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; p145 c-kit; EC 2.7.10.1

Application Instructions

Application table

Application	Dilution
FACS	< 1 µg/10^6 cells

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Buffer	BBS (pH 8.2)
Concentration	0.5 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 396028 Chicken Swiss-port # Q09108 Chicken
Gene Symbol	KIT
Gene Full Name	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
Background	This gene encodes the human homolog of the proto-oncogene c-kit. C-kit was first identified as the cellular homolog of the feline sarcoma viral oncogene v-kit. This protein is a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). Mutations in this gene are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous lukemia, and piebaldism. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]
Function	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 (isoform Crk-II), LYN, MAPK1/ERK2 and/or MAPK3/ERK1, PLCG1, SRC and SHC1. [UniProt]
Calculated Mw	110 kDa
PTM	Ubiquitinated by SOCS6. KIT is rapidly ubiquitinated after autophosphorylation induced by KITLG/SCF binding, leading to internalization and degradation. Autophosphorylated on tyrosine residues. KITLG/SCF binding enhances autophosphorylation. Isoform 1 shows low levels of tyrosine phosphorylation in the absence of added KITLG/SCF (in vitro). Kinase activity is down-regulated by phosphorylation on serine residues by protein kinase C family members. Phosphorylation at Tyr-568 is required for interaction with PTPN11/SHP-2, CRK (isoform Crk-II) and members of the SRC tyrosine-protein kinase family. Phosphorylation at Tyr-570 is required for interaction with PTPN6/SHP-1. Phosphorylation at Tyr-703, Tyr-823 and Tyr-936 is important for interaction with GRB2. Phosphorylation at Tyr-721 is important for interaction with PIK3R1. Phosphorylation at Tyr-823 and Tyr-936 is important for interaction with GRB7. [UniProt]
Cellular Localization	Isoform 1: Cell membrane; Single-pass type I membrane protein. Isoform 2: Cell membrane; Single-pass type I membrane protein. Isoform 3: Cytoplasm. Note=Detected in the cytoplasm of spermatozoa, especially in the equatorial and subacrosomal region of the sperm head. [UniProt]