

ARG21046 anti-CD117 / c-Kit antibody [2B8]

Package: 250 µg
Store at: -20°C

Summary

Product Description	Rat Monoclonal antibody [2B8] recognizes CD117 / c-Kit
Tested Reactivity	Ms
Tested Application	FACS, ICC/IF, IHC-Fr, IP
Specificity	Mouse CD117.
Host	Rat
Clonality	Monoclonal
Clone	2B8
Isotype	IgG2b, kappa
Target Name	CD117 / c-Kit
Antigen Species	Mouse
Immunogen	Mouse IL-3-dependent bone marrow mast cells
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	Assay-dependent
	ICC/IF	Assay-dependent
	IHC-Fr	1:100
	IP	Assay-dependent
Application Note	The clone [2B8] is not suitable for IHC-P samples. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Calculated Mw	110 kDa	

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: 16590 Mouse](#)

[Swiss-port # P05532 Mouse](#)

Gene Symbol

KIT

Gene Full Name

kit oncogene

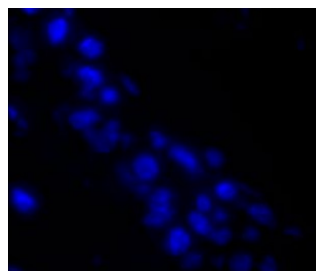
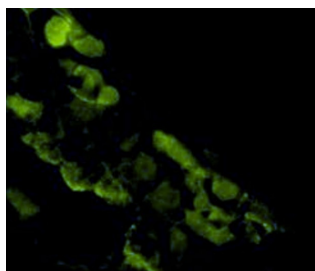
Background

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 leukemia, 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]

Images



ARG21046 anti-CD117 / c-Kit antibody [2B8] IHC-Fr image

Immunohistochemistry: Frozen section of Mouse embryo stained with ARG21046 anti-CD117 / c-Kit antibody [2B8] at 1:100 dilution (left). DAPI nuclear stain (right).