

## ARG65364 anti-CD117 / c-Kit antibody [104D2]

Package: 100 µg  
Store at: -20°C

### Summary

Product Description	Mouse Monoclonal antibody [104D2] recognizes CD117
Tested Reactivity	Hu, Bov, NHuPrm
Tested Application	CyTOF®-candidate, FACS, ICC/IF, IHC-Fr, IP
Specificity	The mouse monoclonal antibody 104D2 detects extracellular part of CD117 / cKit protooncogen. HLDA VI; WS Code C30
Host	Mouse
Clonality	Monoclonal
Clone	104D2
Isotype	IgG1
Target Name	CD117 / c-Kit
Immunogen	MOLM-1 megakaryocytic cells_x000D_
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
	CyTOF®-candidate	Assay-dependent
	FACS	1 µg/ml
	ICC/IF	Assay-dependent
	IHC-Fr	Assay-dependent
	IP	Assay-dependent
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

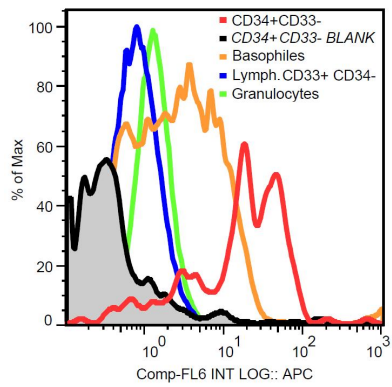
### Properties

Form	Liquid
Purification	Purified from hybridoma culture supernatant by protein-A affinity chromatography.
Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide

Concentration	1 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 or below. 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	<a href="#">GeneID: 3815 Human</a>  <a href="#">Swiss-port # P10721 Human</a>
Gene Symbol	KIT
Gene Full Name	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
Background	CD117 / c-Kit (stem cell factor receptor) is a 145 kDa receptor tyrosine kinase that regulates cell proliferation, adhesion, chemotaxis, apoptosis and other cell processes. Mutations of CD117 / c-Kit can lead to growth and progression of tumours. After binding of its ligand, SCF (stem cell factor), CD117 / c-Kit is autophosphorylated on its intracellular domains and activated. CD117 is expressed on pluripotent hematopoietic progenitor cells, mast cells and various cancer cells, e.g. acute myeloid leukemia cells.
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]
Highlight	Related products: <a href="#">CD117 antibodies</a> ; <a href="#">CD117 ELISA Kits</a> ; <a href="#">Anti-Mouse IgG secondary antibodies</a> ; Related news: <a href="#">Stem cell and the regenerative medicine: Ready for the patients</a> <a href="#">CyTOF-candidate Antibodies</a>
Research Area	Cancer antibody; Controls and Markers antibody; Developmental Biology antibody; Immune System antibody; Neuroscience antibody; Signaling Transduction antibody
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.



ARG65364 anti-CD117 / c-Kit antibody [104D2] FACS image

Flow Cytometry: Human peripheral blood cells stained with ARG65364 anti-CD117 / c-Kit antibody [104D2].