

Monoclonal Antibody to CD117 / c-kit - FITC

Alternate names:	KIT, Mast/stem cell growth factor receptor, Proto-Oncogene Tyrosine-Protein Kinase, SCFR
Catalog No.:	AM05206FC-N
Quantity:	100 Tests
Concentration:	100 Tests/vial
Background:	c-Kit is a transmembrane tyrosine kinase encoded by the cKit proto oncogene. c-Kit acts to regulate a variety of biological responses including cell proliferation, apoptosis, chemotaxis and adhesion. Ligand binding to the extracellular domain leads to autophosphorylation on several tyrosine residues within the cytoplasmic domain, and activation. Mutations in c-Kit have been found to be important for tumor growth and progression in a variety of cancers including mast cell diseases, gastrointestinal stromal tumor, acute myeloid leukemia, Ewing sarcoma and lung cancer. Phosphorylation at tyrosine 721 of c-Kit allows binding and activation of PI3 kinase.
Uniprot ID:	P10721
NCBI:	NP_000213.1
GeneID:	3815
Host / Isotype:	Mouse / IgG1
Clone:	NU-c-kit
Immunogen:	Immunized with transfected cells with c-kit DNA in human leukemia cells (UT-7). Remarks: Molecular Weight: 145kDa.
Format:	State: Liquid (sterile filtered) IgG fraction. Buffer System: PBS containing 0.2% carriers protein and 0.08% Sodium Azide as preservative. Label: FITC
Applications:	Flow Cytometry: Use 10 µl per 1 x 10 ⁶ PBMC in 100 µl PBS or 10 µl per 100 µl whole blood. Monitoring of CD34-positive cells. Analysis of 8% of myelomonocytes. Study of hematopoietic stem cell differentiation and proliferation. Study of the c-kit gene product (SCF receptor). Study of a part of acute myeloblastic leukemia cells. Study of chronic myeloblastic leukemia cells. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

For research and in vitro use only. Not for diagnostic or therapeutic work.

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- Specificity:** This CD117 antibody reacts against c-kit gene product (SCF receptor). CD117 reacts with 8% of myelomonocytes and 75% of CD34-positive cells. The hematopoietic stem cells are included in this fraction and therefore, this gene product is considered to have an important function for differentiation and proliferation of hematopoietic cells. CD117 also reacts with placenta, brain, a part of acute myeloblastic leukemia cells and chronic myeloblastic leukemia cells, but not with acute lymphoblastic leukemia cells.
Species: Human.
Other species not tested.
- Storage:** Store the antibody undiluted at 2-8°C.
DO NOT FREEZE!
Shelf life: One year from despatch.
- Protocols:** **PBMC:**
Count the number of positive cells in peripheral blood.
Add 10 µl of Mab to 50 µl suspended lymphocyte solution at 2×10^7 .
Mix gently and incubate for 15 minutes at 2-8°C.
Wash twice with PBS and analyze or fix with 0.5% v/v of paraformaldehyde in PBS and analyze.
See instrument manufacturers instructions for Lysed Whole Blood and Immunofluorescence analysis with a flow cytometer or microscope.

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