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Monoclonal Antibody to CD117 / c-kit - PE

Alternate names: KIT, Mast/stem cell growth factor receptor, Proto-Oncogene Tyrosine-Protein Kinase, SCFR

Catalog No.: SM1720R

Quantity: 100 Tests

Background: c-kit, also known as stem cell factor receptor, steel factor receptor or CD117 is classified as a type III receptor tyrosine kinase (RTK) belonging to the platelet-derived growth factor receptor subfamily. Binding of stem cell factor (SCF), known as c-kit ligand to c-kit initiate autophosphorylation of the receptor, subsequently leading to promotes a signal transduction cascade through Ras-Raf-MAP kinase cascade, phosphatidylinositol-3-kinase, src family kinases, and STATs. The role of c-kit includes maturation of hematopoietic and primordial germ cells precursors and melanocytes during embryonic development. In acute myeloid leukemia (AML), c-kit has been proposed to play a functional role, and becomes target molecule for drug development.

Uniprot ID: P10721

NCBI: NP_000213.1

GeneID: 3815

Host / Isotype: Mouse / IgG1

Clone: 104D2

Immunogen: MOLM-1 Megakaryocyte cell line.

Format:
State: Liquid purified IgG fraction
Buffer System: PBS
Preservatives: 0.09% Sodium Azide
Stabilizers: 0.2% BSA
Label: PE – R. Phycoerythrin (RPE)

Applications:
Flow Cytometry: Use 20 µl of *Neat* antibody to label 10^6 cells in 100 µl.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:
This antibody recognises the CD117 cell surface antigen.
Functionally CD117 is a receptor for stem cell factor, and has receptor tyrosine kinase activity.
Species: Human, Cynomolgus Monkey and Bovine.
Other species not tested.

Storage:
Store undiluted at 2-8°C.
DO NOT FREEZE!
This product is photosensitive and should be protected from light.
Shelf life: one year from despatch.

General References: 1. Broudy, V.C. et al. (1998) Analysis of c-kit receptor dimerization by fluorescence resonance energy transfer. Blood 91: 898-906.
2. Yoshino, N. et al. (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of Cynomolgus monkeys (Macaca fascicularis) by using anti-human cross-reactive antibodies. Exp. Anim. 49: 97-110.
3. Jayapal, M. et al. (2006) Genome-wide gene expression profiling of human mast cells stimulated by IgE or FcepsilonRI-aggregation reveals a complex network of genes involved in inflammatory responses. BMC Genomics. 7: 210-26.
4. Randall, V.A. et al. (2008) Stem cell factor/c-Kit signalling in normal and androgenetic alopecia hair follicles. J Endocrinol. 197: 11-23.