

Anti-Human CD117 (c-Kit) Antibody, Clone 104D2, Biotin



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Antibodies

Mouse monoclonal IgG1 antibody
against human, cynomolgus, cow
CD117 (c-Kit), biotin-conjugated

Catalog #60087BT

100 µg 0.5 mg/mL

Product Description

The 104D2 antibody reacts with CD117 (c-Kit), an ~145 kDa type 1 transmembrane receptor for c-Kit ligand (stem cell factor/steel factor) that is broadly expressed on hematopoietic stem cells in bone marrow, including pluripotent and erythroid progenitor cells and B and T lymphocyte precursors, as well as on mast cells and melanocytes. CD117 is expressed on ~1 - 4% of bone marrow cells, the majority of which (~50 - 70%) co-express CD34 and comprise progenitor cells and their precursors. CD117 belongs to the tyrosine kinase receptor family and possesses five immunoglobulin-like C2-type domains and a cytoplasmic protein kinase domain. Binding of c-Kit ligand to CD117 induces dimerization and autophosphorylation, which activates several intracellular signaling pathways critical for the proliferation and differentiation of hematopoietic stem cells. Signaling by CD117 is modulated by phosphatases and by rapid endocytosis and degradation of the receptor. Binding of the 104D2 antibody does not block binding of c-Kit ligand or antibody clone SR1.

Target Antigen Name:	CD117 (c-Kit)
Alternative Names:	c-KIT, cKIT, stem cell factor receptor (SCFR)
Gene ID:	3815
Species Reactivity:	Human, Cynomolgus, Cow
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	104D2
Isotype:	IgG1, kappa
Immunogen:	MOLM-1 megakaryocytic cell line
Conjugate:	Biotin

Applications

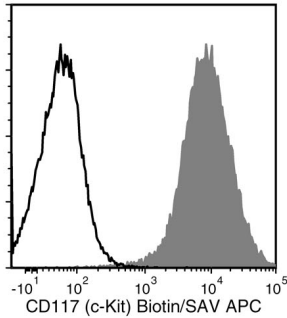
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells cultured with STEMdiff™ Definitive Endoderm Kit (Catalog #05110).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is $\leq 2 \mu\text{g}$ per 1×10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human erythroleukemia (HEL) cells labeled with Anti-Human CD117 (c-Kit) Antibody, Clone 104D2, Biotin, followed by streptavidin (SAV) APC (filled histogram), or a mouse IgG1, kappa biotin isotype control antibody, followed by SAV APC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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