Antibodies

Anti-Mouse CD117 Antibody, Clone 2B8, Biotin

Rat monoclonal IgG2b antibody against mouse CD117 (c-Kit), biotin-conjugated

Catalog #60025BT	500 µg	0.5 mg/mL
#60025BT.1	50 µg	0.5 mg/mL

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Product Description

The 2B8 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. 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. The 2B8 antibody does not block binding of c-Kit ligand. Mutations in CD117 are associated with various types of tumors and the piebald trait, an autosomal dominant abnormality of pigmentation.

Target Antigen Name:	CD117 (c-Kit)
Alternative Names:	c-KIT, cKIT, Stem cell factor receptor (SCFR)
Gene ID:	16590
Species Reactivity:	Mouse
Host Species:	Rat (Wistar)
Clonality:	Monoclonal
Clone:	2B8
Isotype:	IgG2b, kappa
Immunogen:	Mouse bone marrow mast cells
Conjugate:	Biotin

Applications

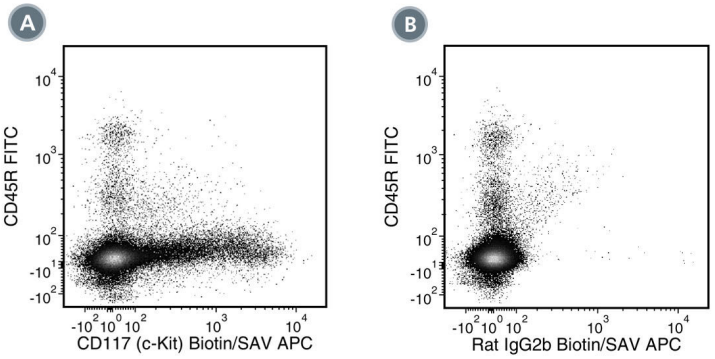
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Hematopoietic Progenitor Cell Isolation Kit (Catalog #19856).

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 ≤ 0.25 µg per 1 x 10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



(A) Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with Anti-Mouse CD117 Antibody, Clone 2B8, Biotin, followed by streptavidin (SAV) APC and Anti-Mouse CD45R Antibody, Clone RA3-6B2, FITC (Catalog #60019FI).
(B) Flow cytometry analysis of C57BL/6 mouse bone marrow cells labeled with Rat IgG2b, kappa Isotype Control Antibody, Clone RTK4530, Biotin (Catalog #60077BT), followed by SAV APC and Anti-Mouse CD45R Antibody, Clone RA3-6B2, FITC.

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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