Anti-Mouse CD117 Antibody, Clone 2B8, PE

Antibodies

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

Catalog	#60025PE	200 µg	0.2 mg/mL
	#60025PE.1	50 µg	0.2 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:	PE

Applications

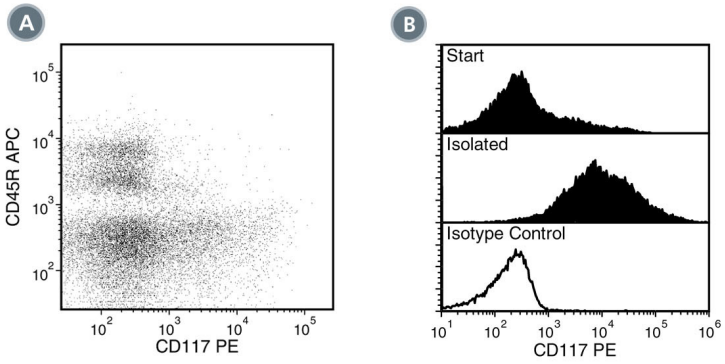
Verified:	CellSep, FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Mouse Hematopoietic Progenitor Cell Enrichment Kit (Catalog #19756).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; 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 PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please request a lot-specific Certificate of Analysis from techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.06 µg per 1 x 10e6 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, PE and anti-mouse CD45R APC. (B) Flow cytometry analysis of C57BL/6 mouse bone marrow cells processed with the EasySep™ PE Selection Kit for Mouse Cells (Catalog #18554) using Anti-Mouse CD117 Antibody, Clone 2B8, PE to stain and subsequently isolate labeled target cells. Histograms show labeling of bone marrow (Start) and isolated cells (Isolated). Labeling with a rat IgG2b, kappa PE isotype control antibody is shown in the bottom panel (open histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Mouse CD117 Antibody, Clone 2B8	60025	500 µg
Anti-Mouse CD117 Antibody, Clone 2B8, PE	60025PE	200 µg
Anti-Mouse CD117 Antibody, Clone 2B8, PE	60025PE.1	50 µg
Anti-Mouse CD117 Antibody, Clone 2B8, Alexa Fluor® 488	60025AD	100 µg
Anti-Mouse CD117 Antibody, Clone 2B8, Alexa Fluor® 488	60025AD.1	25 µg

References

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