Datasheet for ABIN375580

anti-KIT antibody (SPRD)

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Overview

Quantity:	0.1 mg
Target:	KIT
Reactivity:	Mouse
Host:	Rat
Clonality:	Monoclonal
Conjugate:	This KIT antibody is conjugated to SPRD
Application:	Flow Cytometry (FACS)

Product Details

Brand:	Spectral Red ™
Immunogen:	Mouse IL-3-dependent bone marrow mast cells
Clone:	2B8
Isotype:	IgG2b
Specificity:	Mouse CD117, Mr 150 kDa
Characteristics:	Rat Anti-Mouse CD117-SPRD
Purification:	Purified

Target Details

Target:	KIT
Alternative Name:	CD117 (KIT Products)

Target Details

Background:	The CD117/c-kit antigen is the cell-surface receptor for Stem Cell Factor (SCF). Together these molecules constitute a ligand/receptor pair which functions to maintain normal hematopoiesis in the adult. Signaling through SCF/c-kit has an important role in stimulating myeloid and erythroid production of primitive hematopoietic progenitor cells. A variety of cytokines act synergistically with SCF to stimulate proliferation and differentiation of bone marrow progenitor cells. For example, SCF plus IL-7 can stimulate the combined myeloid and B-cell differentiation of uncommitted hematopoietic progenitor cells. SCF/c-kit also participates in erythropoiesis in both the bone marrow and spleen. Loss-of-function mutations for SCF/c-kit lead to a variety of pleiotropic developmental defects, while gain-of-function mutations can lead to constitutive activation of the kit receptor and links to cancer. Examples of the former are mast cell deficiency and severe macrocytic anemia, while the latter mutation has been identified in mastocytomas. Anti-CD117 mAbs have been used to block the function of the c-kit receptor in a variety of studies. These include the blockade of hematopoiesis and disruption of melanocyte development.
Pathways:	RTK Signaling, Fc-epsilon Receptor Signaling Pathway, EGFR Signaling Pathway, Neurotrophin Signaling Pathway, Sensory Perception of Sound, Stem Cell Maintenance, Production of Molecular Mediator of Immune Response, Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Application Notes:	• **Applications:** FC - Quality tested , IHC-FS - Reported in literature , ICC - Reported in literature , IP - Reported in literature • **Working Dilutions:** Flow Cytometry FITC and PACBLU conjugates 1 g/106 cells BIOT conjugate 0.3 g/106 cells PE, APC, SPRD, CY5, APC/CY5.5, and APC/CY7 conjugates 0.2 g/106 cells AF488 conjugate 0.1 g/106 cells AF647 conjugate 0.05 g/106 cells For flow cytometry, the suggested use of these reagents is in a final volume of 100 L
Comment:	Cell homing studies, Hematopoiesis and development studies
Sample Volume:	1 mL
Restrictions:	For Research Use only

Handling

Concentration:	0.1 mg/mL
Buffer:	0.1 mg in 1.0 mL of PBS/Sodium azide and a stabilizing agent
Preservative:	Sodium azide

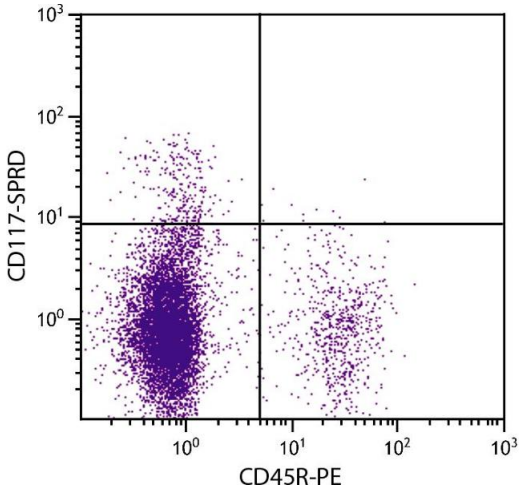
Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze!** **Protect conjugated products from light.** Each reagent is stable for the period shown on the bottle label if stored as directed.
Storage:	4 °C
Storage Comment:	Store at 2-8°C

Publications

Product cited in:	Ikami, Tokue, Sugimoto, Noda, Kobayashi, Hara, Yoshida: "Hierarchical differentiation competence in response to retinoic acid ensures stem cell maintenance during mouse spermatogenesis." in: **Development (Cambridge, England)**, Vol. 142, Issue 9, pp. 1582-92, (2015) (PubMed).

Images



Flow Cytometry

Image 1. C57BL/6 mouse bone marrow cells were stained with Rat Anti-Mouse CD117-SPRD.