

Ultra-LEAF™ Purified anti-human CD117 (c-kit) Antibody

Catalog# / Size	380203 / 100 µg
Clone	W18195E
Regulatory Status	RUO
Other Names	Stem cell factor receptor, c-kit, mast cell growth factor receptor, steel factor receptor
Isotype	Rat IgG2a, λ
Description	CD117 is a 145 kD protein tyrosine kinase also known as c-Kit. It is a receptor for stem cell factor or c-Kit ligand. CD117 is expressed on pluripotent hematopoietic progenitor cells (approximately 1-4% bone marrow cells), mast cells, and acute myeloid leukemia cells (AML). CD117 binding of c-Kit ligand induces phosphorylation of CD117 and stimulates proliferation and survival of primitive hematopoietic stem cells as well as erythroid-committed and granulomonocytic committed cells.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Human CD117 transfectant
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested Block - Verified
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	Clone W18195E can complete block binding of clones H18022H and W18195D on target cells. Clone W18195E does not affect binding of clones 104D2, W18195C or S18022G on target cells. Clone W18195E can block ligand binding on c-kit.
RRID	AB_2924570 (BioLegend Cat. No. 380203)

Antigen Details

Structure	Growth factor receptor with tyrosine kinase activity, subclass III, approximately 145 kD
Distribution	Pluripotent hematopoietic progenitor cells (approximately 1-4% bone marrow cells), mast cells, acute myeloid leukemic cells (AML)
Function	Receptor for stem cell factor. Induces proliferation and survival of primitive hematopoietic

progenitors. Potent inducer of proliferation in erythroid-committed progenitor cells. Defects in CD117 have been linked to severe anemia and a decreased number of hematopoietic progenitor cells.

Ligand/Receptor	Stem cell factor (c-kit ligand)
Cell Type	Embryonic Stem Cells, Hematopoietic stem and progenitors, Leukemia, Mast cells, Mesenchymal Stem Cells
Biology Area	Immunology, Stem Cells
Molecular Family	CD Molecules
Antigen References	<ol style="list-style-type: none">1. Giebel LB, <i>et al.</i> 1992. <i>Oncogene</i>. 7:2207-17.2. Furitsu T, <i>et al.</i> 1993. <i>J Clin Invest</i>. 92:1736-44.
Gene ID	3815

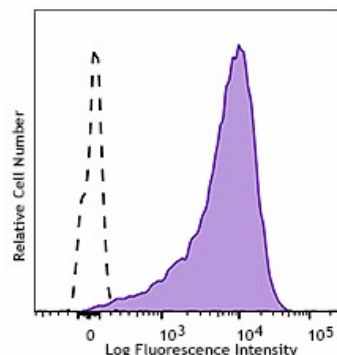
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

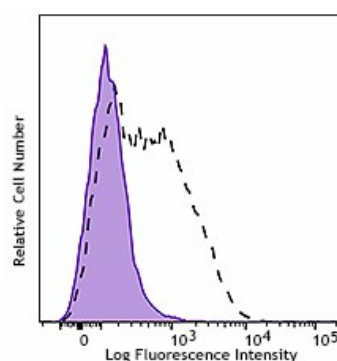
Other Formats

Ultra-LEAF™ Purified anti-human CD117 (c-kit)

Product Data



Kasumi-3 cells (an acute myeloblastic leukemia cell line) were stained with Ultra-LEAF™ purified anti-human CD117 (c-kit) (clone W18195E) (filled histogram) or purified rat IgG2a, κ isotype control (open histogram), followed by PE goat anti-rat IgG.



MO7E cells (a human megakaryocyte cell line) were pretreated with Ultra-LEAF™ purified anti-human CD117 (c-kit) (clone W18195E) (filled histogram) or purified rat IgG2a, κ isotype control (open histogram) for 15 minutes, then 100 ng of Recombinant Human SCF (Cat. No. 573902) were added for another 5 minutes in 37°C incubation. Cell were then fixed and permeabilized with Cyto-Fast™ Fix/Perm Buffer Set (Cat. No. 426803), and intracellularly stained with APC anti-ERK1/2 Phospho (Thr202/Tyr204) (Cat. No. 369521).

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