

Brilliant Violet 570™ anti-human CD117 (c-kit) Antibody

Catalog# / Size	375213 / 25 tests 375214 / 100 tests
Clone	S18022G
Regulatory Status	RUO
Other Names	Stem cell factor receptor, c-kit, mast cell growth factor receptor, steel factor receptor
Isotype	Mouse IgG2a, κ
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	Mouse
Immunogen	Human CD117 transfectant
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 570™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	<p>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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 570™ is a trademark of Sirigen Group Ltd.</p> <p>Learn more about Brilliant Violet™.</p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
Excitation Laser	Violet Laser (405 nm)

Application Notes Clone S18022G antibody can completely block the binding of clone 104D2 to the target, but it does not block the binding of clone w18195C to the target. Clone S18022G antibody binding to the target is not affected after cells are fixed by 4% PFA.

RRID AB_3699014 (BioLegend Cat. No. 375213)
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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)

Antigen References 1. Giebel LB, *et al.* 1992. *Oncogene* 7:2207.
2. Furitsu T, *et al.* 1993. *J. Clin. Invest.* 92:1736.

Gene ID [3815](#)

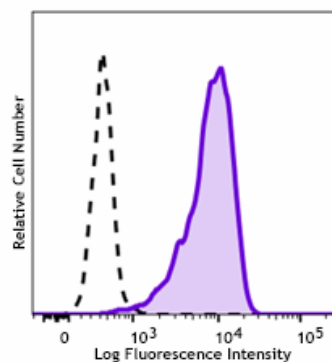
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Pacific Blue™ anti-human CD117 (c-kit) Antibody, PE/Cyanine7 anti-human CD117 (c-kit) Antibody, APC anti-human CD117 (c-kit), Purified anti-human CD117 (c-kit) Antibody, PE anti-human CD117 (c-kit) Antibody, Brilliant Violet 421™ anti-human CD117 (c-kit) Antibody, Brilliant Violet 570™ anti-human CD117 (c-kit) Antibody, Brilliant Violet 785™ anti-human CD117 (c-kit) Antibody, Spark PLUS UV395™ anti-human CD117 (c-kit)

Product Data



Kasumi-3 cells (human acute myeloblastic leukemia cell line) were stained with anti-human CD117 (c-kit) (clone S18022G) Brilliant Violet 570™ (filled histogram) or mouse IgG2a, κ Brilliant Violet 570™ isotype control (open histogram).

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