

## Brilliant Violet 510™ anti-human CD117 (c-kit) Antibody

<b>Catalog# / Size</b>	375313 / 25 tests
<b>Clone</b>	W18195C
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Stem cell factor receptor, c-kit, mast cell growth factor receptor, steel factor receptor
<b>Isotype</b>	Rat IgG2a, $\kappa$
<b>Description</b>	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

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<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Human CD117 transfectant
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our <a href="#">Certificate of Analysis</a> online tool.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. For flow cytometric staining, the suggested use of this reagent is 5 <math>\mu</math>L per million cells in 100 <math>\mu</math>L staining volume or 5 <math>\mu</math>L per 100 <math>\mu</math>L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></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>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	Clone W18195C antibody does not block the binding of clones 104D2 or S18022G to the target.

Clone W18195C antibody does not bind to the target after cells are fixed by 4% PFA.

RRID AB\_3699017 (BioLegend Cat. No. 375313)

## Antigen Details

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<b>Structure</b>	Growth factor receptor with tyrosine kinase activity, subclass III, approximately 145 kD
<b>Distribution</b>	Pluripotent hematopoietic progenitor cells (approximately 1-4% bone marrow cells), mast cells, acute myeloid leukemic cells (AML)
<b>Function</b>	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.
<b>Ligand/Receptor</b>	Stem cell factor (c-kit ligand)
<b>Cell Type</b>	Embryonic Stem Cells, Hematopoietic stem and progenitors, Leukemia, Mast cells, Mesenchymal Stem Cells
<b>Biology Area</b>	Immunology, Stem Cells
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	1. Giebel LB, <i>et al.</i> 1992. <i>Oncogene</i> . 7:2207. 2. Furitsu T, <i>et al.</i> 1993. <i>J. Clin. Invest.</i> 92:1736.
<b>Gene ID</b>	<a href="#">3815</a>

## Related Protocols

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

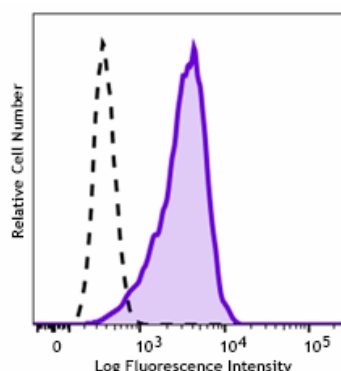
## Other Formats

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Purified anti-human CD117 (c-kit), PE/Cyanine7 anti-human CD117 (c-kit) Antibody, PE anti-human CD117 (c-kit) Antibody, APC anti-human CD117 (c-kit), Pacific Blue™ anti-human CD117 (c-kit), Brilliant Violet 750™ anti-human CD117 (c-kit), Brilliant Violet 510™ anti-human CD117 (c-kit)

## Product Data

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Kasumi-3 cells (human acute myeloblastic leukemia cell line) were stained with anti-human CD117 (c-kit) (clone W18195C) Brilliant Violet 510™ (filled histogram) or rat IgG2a, κ Brilliant Violet 510™ isotype control (open histogram).

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