

## Brilliant Violet 750™ anti-mouse IL-2 Antibody

<b>Catalog# / Size</b>	503853 / 50 µg
<b>Clone</b>	JES6-5H4
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interleukin-2, T cell growth factor (TCGF), Eosinophil differentiation factor (EDF), Killer cell helper factor (KHF), Macrophage-activating factor for cytotoxicity I (MAF-C I), Thymocyte differentiation factor (TDF)
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	IL-2 is a potent lymphoid cell growth factor which exerts its biological activity primarily on T cells. Additionally, IL-2 has been found to stimulate growth and differentiation of B cells, NK cells, LAK cells, monocytes, and oligodendrocytes.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	<i>E. coli</i> -expressed, recombinant mouse IL-2
<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 750™ under optimal conditions.
<b>Concentration</b>	0.2 mg/mL
<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="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a>. 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.</p> <p>Brilliant Violet 750™ excites at 405 nm and emits at 750 nm. The bandpass filter 780/60 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 750™ 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>	<b>ELISA Detection<sup>1-3</sup> or ELISPOT Detection<sup>4-6</sup>:</b> The biotinylated JES6-5H4 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with the purified JES6-1A12 antibody (Cat. Nos. 503701 & 503702) as capture antibody and recombinant mouse IL-2 (Cat. No. 575409) as the standard.

**Flow Cytometry**<sup>8-10</sup>: The fluorochrome-labeled JES6-5H4 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IL-2 -producing cells within mixed cell populations.

**Neutralization**<sup>1,7</sup>: The Ultra-LEAF™ purified antibody (Endotoxin *in vivo* and *in vitro* (Cat. No. 503845-503850)) is recommended for neutralization.

**Additional reported applications (for the relevant formats) include:** immunoprecipitation<sup>1</sup>, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections<sup>2</sup>, *in vivo* capture<sup>7</sup>, and immunocytochemistry.

**Note:** For testing mouse IL-2 in serum, plasma or supernatant, BioLegend's ELISA MAX™ Sets (Cat. No. 431001 & 431004) are specially developed and recommended.

#### Application References

(PubMed link indicates BioLegend citation)

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5.
2. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201.
3. Abrams J. 1995. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.20.
4. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons New York. Unit 6.19.
5. Mo X, *et al.* 1995. *J. Virol.* 69:1288.
6. Karulin A, *et al.* 2000. *J. Immunol.* 164:1862.
7. Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons New York. Unit 6.28.
8. Ko SY, *et al.* 2005. *J. Immunol.* 175:3309. [PubMed](#)
9. Kang SS and Allen PM. 2005. *J. Immunol.* 174:5382.
10. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.

RRID AB\_3699054 (BioLegend Cat. No. 503853)

## Antigen Details

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<b>Structure</b>	Cytokine; 15-30 kD (Mammalian)
<b>Bioactivity</b>	Proliferation of T lymphocytes, B cells, anti-inflammatory, hematopoiesis, tumor surveillance
<b>Cell Sources</b>	T cells
<b>Cell Targets</b>	T cells, B cells, NK cells, LAK cells, monocytes, macrophages, oligodendrocytes
<b>Receptors</b>	High affinity heterotrimer of IL-2R $\alpha$ / $\beta$ / $\gamma$ , intermediate affinity homodimer IL-2R $\alpha$ (CD25; p55; Tac) and heterodimer IL-2R $\beta$ (CD122)/ $\gamma$ ; $\gamma$ -subunit (CD132) in common with IL-4R, IL-7R, IL-13R, IL-15R
<b>Cell Type</b>	Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. The Cytokine FactsBook. Academic Press San Diego.</li><li>2. Taniguchi T, <i>et al.</i> 1993. <i>Cell</i> 73:5.</li><li>3. Nistico G. 1993. <i>Prog. Neurobiol.</i> 40:463.</li><li>4. Waldmann T, <i>et al.</i> 1993. <i>Ann. NY Acad. Sci.</i> 685:603.</li></ol>
<b>Regulation</b>	Upregulated by NFAT; downregulated by TCF-8, CIF (colostrum inhibitory factor)
<b>Gene ID</b>	<a href="#">16183</a>

## Related Protocols

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- [Intracellular Flow Cytometry Staining Protocol](#)

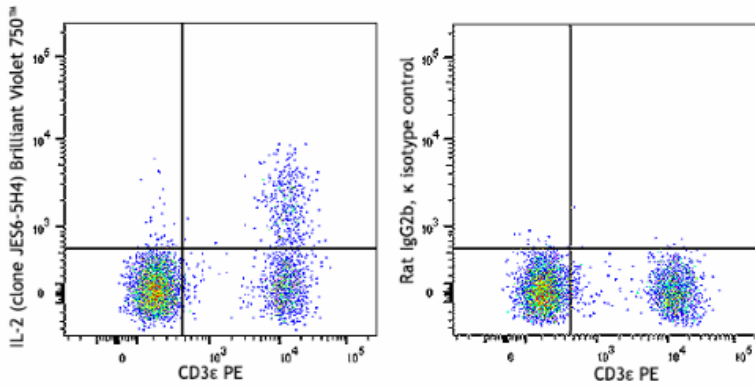
## Other Formats

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APC anti-mouse IL-2, Biotin anti-mouse IL-2, FITC anti-mouse IL-2, PE anti-mouse IL-2, Purified anti-mouse IL-2, Alexa Fluor® 488 anti-mouse IL-2, Alexa Fluor® 647 anti-mouse IL-2, Alexa Fluor® 700 anti-mouse IL-2, Pacific Blue™ anti-mouse IL-2, PerCP/Cyanine5.5 anti-mouse IL-2, PE/Cyanine5 anti-mouse IL-2, Brilliant Violet 421™ anti-mouse IL-2, Brilliant Violet 605™ anti-mouse IL-2, PE/Cyanine7 anti-mouse IL-2, Brilliant Violet 510™ anti-mouse IL-2, Purified anti-mouse IL-2 (Maxpar® Ready), Brilliant Violet 711™ anti-mouse IL-2, PE/Dazzle™ 594 anti-mouse IL-2, APC/Fire™ 750 anti-mouse IL-2, Brilliant Violet 785™ anti-

mouse IL-2, Spark Red™ 718 anti-mouse IL-2, Brilliant Violet 750™ anti-mouse IL-2 Antibody, TotalSeq™-C1527 anti-mouse IL-2 Antibody

## Product Data



PMA+ionomycin stimulated (6 hours, in the presence of monensin) C57BL/6 mouse splenocytes were stained with anti-mouse CD3ε (clone 145-2C11) PE and anti-mouse IL-2 (clone JES6-5H4) Brilliant Violet 750™ (left) or rat IgG2b, κ Brilliant Violet 750™ isotype control (right).

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