

## Brilliant Violet 421™ anti-mouse CD8a Antibody

<b>Catalog# / Size</b>	162315 / 50 µg
<b>Clone</b>	S18018E
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	T8, Lyt2, Ly-2
<b>Isotype</b>	Rat IgG2b, λ
<b>Description</b>	CD8, also known as Lyt-2, Ly-2, or T8, consists of disulfide-linked α and β chains that form the α(CD8a)/β(CD8b) heterodimer and α/α homodimer. CD8a is a 34 kD protein that belongs to the immunoglobulin family. The CD8 α/β heterodimer is expressed on the surface of most thymocytes and a subset of mature TCR α/β T cells. CD8 expression on mature T cells is non-overlapping with CD4. The CD8 α/α homodimer is expressed on a subset of γ/δ TCR-bearing T cells, NK cells, intestinal intraepithelial lymphocytes, and lymphoid dendritic cells. CD8 is an antigen co-receptor on T cells that interacts with MHC class I on antigen-presenting cells or epithelial cells. CD8 promotes T cell activation through its association with the TCR complex and protein tyrosine kinase lck.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Recombinant mouse CD8a
<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 421™ 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="#">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 ≤ 0.12 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 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ 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)

### Antigen Details

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<b>Structure</b>	Ig superfamily, CD8 $\alpha$ chain, 34 kD
<b>Distribution</b>	Most thymocytes, T cell subset, some NK cells, lymphoid dendritic cells
<b>Function</b>	Co-receptor for TCR
<b>Ligand/Receptor</b>	MHC class I molecule
<b>Cell Type</b>	Dendritic cells, NK cells, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Ledbetter JA, <i>et al.</i> 1979. <i>Immunol. Rev.</i> 47:63. (IHC, IP)</li> <li>2. Hathcock KS. 1991. <i>Current Protocols in Immunology.</i> 3.4.1. (Deplete)</li> <li>3. Takahashi K, <i>et al.</i> 1992. <i>P. Natl. Acad. Sci. USA</i> 89:5557. (Block, IP)</li> <li>4. Ledbetter JA, <i>et al.</i> 1981. <i>J. Exp. Med.</i> 153:1503. (Block)</li> <li>5. Hata H, <i>et al.</i> 2004. <i>J. Clin. Invest.</i> 114:582. (IHC)</li> <li>6. Fan WY, <i>et al.</i> 2001. <i>Exp. Biol. Med.</i> 226:1045. (IHC)</li> <li>7. Shih FF, <i>et al.</i> 2006. <i>J. Immunol.</i> 176:3438. (FC)</li> <li>8. Kamimura D, <i>et al.</i> 2006. <i>J. Immunol.</i> 177:306.</li> <li>9. Bower HGA, <i>et al.</i> 2006. <i>P. Natl. Acad. Sci. USA</i> 103:5102. (FC, Deplete)</li> <li>10. Kao C, <i>et al.</i> 2005. <i>Int. Immunol.</i> 17:1607. PubMed</li> <li>11. Ko SY, <i>et al.</i> 2005. <i>J. Immunol.</i> 175:3309. (FC) PubMed</li> <li>12. Rasmussen JW, <i>et al.</i> 2006. <i>Infect. Immun.</i> 74:6590</li> </ol>
<b>Gene ID</b>	<a href="#">12525</a>

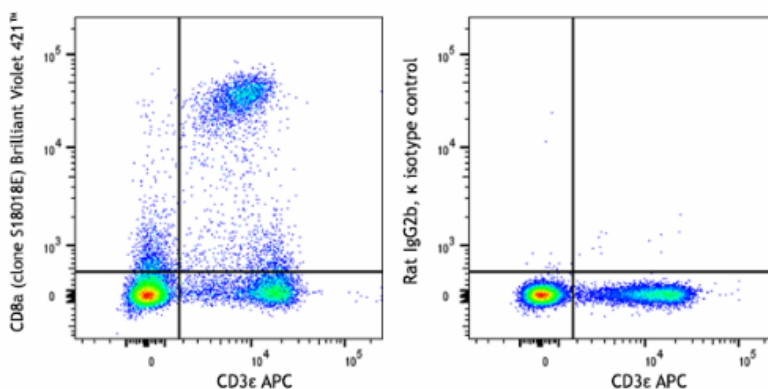
## Related Protocols

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

## Other Formats

Purified anti-mouse CD8 $\alpha$  Antibody, PE anti-mouse CD8 $\alpha$ , APC anti-mouse CD8 $\alpha$ , APC/Fire™ 750 anti-mouse CD8 $\alpha$  , PerCP/Cyanine5.5 anti-mouse CD8 $\alpha$ , PE/Cyanine7 anti-mouse CD8 $\alpha$ , FITC anti-mouse CD8 $\alpha$ , Brilliant Violet 421™ anti-mouse CD8 $\alpha$ , PerCP/Fire™ 806 anti-mouse CD8 $\alpha$ , PerCP/Fire™ 780 anti-mouse CD8 $\alpha$  Antibody, Brilliant Violet 750™ anti-mouse CD8 $\alpha$  Antibody

## Product Data



C57BL/6 mouse splenocytes were stained with anti-mouse CD3 $\epsilon$  (clone 145-2C11) APC and anti-mouse CD8 $\alpha$  (clone S18018E) Brilliant Violet 421™ (left) or rat IgG2b,  $\kappa$  Brilliant Violet 421™ isotype control (right).

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