

## Brilliant Violet 605™ anti-mouse CD4 Antibody

|                          |   |
|--------------------------|---|
| <b>Catalog# / Size</b>   | 100451 / 50 µg  |
| <b>Clone</b>             | GK1.5   |
| <b>Regulatory Status</b> | RUO   |
| <b>Other Names</b>       | L3T4, T4  |
| <b>Isotype</b>           | Rat IgG2b, κ  |
| <b>Description</b>       | CD4 is a 55 kD protein also known as L3T4 or T4. It is a member of the Ig superfamily, primarily expressed on most thymocytes, a subset of T cells, and weakly on macrophages and dendritic cells. It acts as a coreceptor with the TCR during T cell activation and thymic differentiation by binding MHC class II and associating with the protein tyrosin kinase, lck. |

### Product Details

|                               |   |
|-------------------------------|---|
| <b>Verified Reactivity</b>    | Mouse   |
| <b>Antibody Type</b>          | Monoclonal  |
| <b>Host Species</b>           | Rat   |
| <b>Immunogen</b>              | Mouse CTL clone V4  |
| <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 605™ 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 ≤0.5 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 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. <b>Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.</b> Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ 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>      | Additional reported applications (for the relevant formats) include: blocking of CD4 <sup>+</sup> T cell activation <sup>1,4,11</sup> , thymocyte costimulation <sup>3</sup> , <i>in vitro</i> and <i>in vivo</i> depletion <sup>2,5-8</sup> , blocking of egg-sperm cell adhesion <sup>1,4</sup> , immunohistochemical staining of acetone-fixed frozen sections <sup>9,10</sup> , immunoprecipitation <sup>1,2</sup> , and spatial biology (IBEX) <sup>12,13</sup> . The GK1.5 antibody is able to block CD4 mediated cell adhesion and T cell activation. Binding of GK1.5 antibody to CD4 T cells can be blocked by RM4-5 antibody, but not RM4-4 antibody. For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 100442) with a lower endotoxin limit than   |

standard LEAF™ purified antibodies (Endotoxin < 0.01 EU/μg).

## Application References

(PubMed link indicates BioLegend citation)

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RRID

AB\_2564591 (BioLegend Cat. No. 100451)

## Antigen Details

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|                 |   |
|-----------------|---|
| Structure       | Ig superfamily, 55 kD                       |
| Distribution    | Majority of thymocytes, T cell subset       |
| Function        | TCR co-receptor, T cell activation          |
| Ligand/Receptor | MHC class II molecule                       |
| Cell Type       | Dendritic cells, T cells, Thymocytes, Tregs |
| Biology Area    | Immunology                                  |

**Molecular Family**

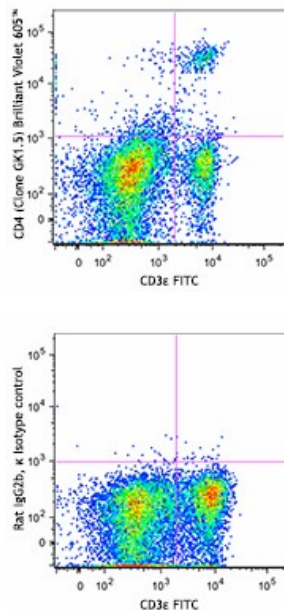
CD Molecules

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**Gene ID**[12504](#)**Related Protocols**[Cell Surface Flow Cytometry Staining Protocol](#)**Other Formats**

APC anti-mouse CD4, Biotin anti-mouse CD4, FITC anti-mouse CD4, PE anti-mouse CD4, PE/Cyanine5 anti-mouse CD4, Purified anti-mouse CD4, PE/Cyanine7 anti-mouse CD4, APC/Cyanine7 anti-mouse CD4, Alexa Fluor® 647 anti-mouse CD4, Alexa Fluor® 488 anti-mouse CD4, Pacific Blue™ anti-mouse CD4, Alexa Fluor® 700 anti-mouse CD4, PerCP anti-mouse CD4, PerCP/Cyanine5.5 anti-mouse CD4, Brilliant Violet 421™ anti-mouse CD4, Ultra-LEAF™ Purified anti-mouse CD4, Alexa Fluor® 594 anti-mouse CD4, Brilliant Violet 711™ anti-mouse CD4, Brilliant Violet 510™ anti-mouse CD4, Brilliant Violet 605™ anti-mouse CD4, Brilliant Violet 785™ anti-mouse CD4, PE/Dazzle™ 594 anti-mouse CD4, APC/Fire™ 750 anti-mouse CD4, GolnVivo™ Purified anti-mouse CD4, Brilliant Violet 750™ anti-mouse CD4, Brilliant Violet 650™ anti-mouse CD4, Spark Blue™ 550 anti-mouse CD4, Spark NIR™ 685 anti-mouse CD4, KIRAVIA Blue 520™ anti-mouse CD4, PE/Fire™ 640 anti-mouse CD4, APC/Fire™ 810 anti-mouse CD4, PE/Fire™ 700 anti-mouse CD4, Spark Violet™ 538 anti-mouse CD4, Spark YG™ 593 anti-mouse CD4, Spark Blue™ 574 anti-mouse CD4 Antibody, Spark UV™ 387 anti-mouse CD4

**Product Data**

C57BL/6 mouse splenocytes were stained with CD3ε FITC and CD4 (clone GK1.5) Brilliant Violet 605™ (top) or rat IgG2b, κ Brilliant Violet 605™ isotype control (bottom).

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