

## APC/Cyanine7 anti-mouse CD4 Antibody

<b>Catalog# / Size</b>	100413 / 25 µg 100414 / 100 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

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<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.
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with APC/Cyanine7 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>	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 =1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Red Laser (633 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).
<b>Additional Product Notes</b>	BioLegend is in the process of converting the name APC/Cy7 to APC/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our APC/Cyanine7 products. Please contact <a href="#">Technical Service</a> if you have any questions.
<b>Application References</b>	<ol style="list-style-type: none"> <li>Dialynas DP, <i>et al.</i> 1983. <i>J. Immunol.</i> 131:2445. (Block, IP)</li> <li>Dialynas DP, <i>et al.</i> 1983. <i>Immunol. Rev.</i> 74:29. (IP, Deplete)</li> <li>Wu L, <i>et al.</i> 1991. <i>J. Exp. Med.</i> 174:1617. (Costim)</li> <li>Godfrey DI, <i>et al.</i> 1994. <i>J. Immunol.</i> 152:4783. (Block)</li> <li>Gavett SH, <i>et al.</i> 1994. <i>Am. J. Respir. Cell. Mol. Biol.</i> 10:587. (Deplete)</li> <li>Schuyler M, <i>et al.</i> 1994. <i>Am. J. Respir. Crit. Care Med.</i> 149:1286. (Deplete)</li> <li>Ghobrial RR, <i>et al.</i> 1989. <i>Clin. Immunol. Immunopathol.</i> 52:486. (Deplete)</li> </ol>
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**RRID** AB\_312698 (BioLegend Cat. No. 100413)  
 AB\_312699 (BioLegend Cat. No. 100414)

## Antigen Details

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<b>Structure</b>	Ig superfamily, 55 kD
<b>Distribution</b>	Majority of thymocytes, T cell subset
<b>Function</b>	TCR co-receptor, T cell activation
<b>Ligand/Receptor</b>	MHC class II molecule
<b>Cell Type</b>	Dendritic 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. Barclay A, <i>et al.</i> 1997. <i>The Leukocyte Antigen FactsBook</i> Academic Press.</li> <li>2. Bierer BE, <i>et al.</i> 1989. <i>Annu. Rev. Immunol.</i> 7:579.</li> <li>3. Janeway CA. 1992. <i>Annu. Rev. Immunol.</i> 10:645.</li> </ol>
<b>Gene ID</b>	<a href="#">12504</a>

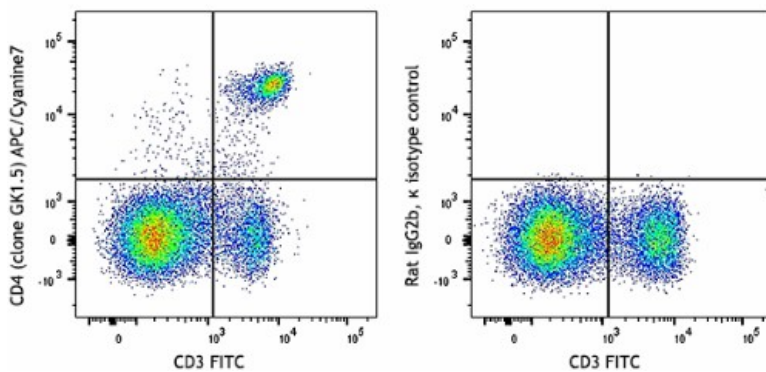
## Related Protocols

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## 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, GoInVivo™ 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 CD3 FITC and CD4 (clone GK1.5) APC/Cyanine7 (left) or Rat IgG2b, κ isotype control (right).

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