

DESCRIPTION

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|---------------------------|---|
| Species Reactivity | Mouse |
| Specificity | Reacts with mouse CD4, an antigen co-receptor on the T cell surface which interacts with MHC II molecules on antigen presenting cells. |
| Source | Monoclonal Rat IgG _{2B} Clone # GK1.5 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | Mouse CTL clone V4 |
| Endotoxin Level | <0.10 EU per 1 µg of the antibody by the LAL method. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

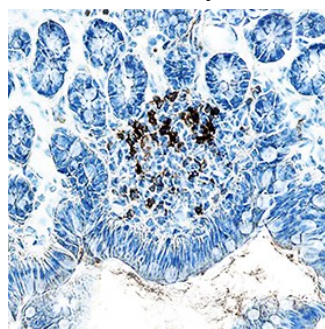
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|--------------------------------------|--|-------------------|
| Flow Cytometry | 2.5 µg/10 ⁶ cells | Mouse splenocytes |
| Immunohistochemistry | 1-25 µg/mL | See Below |
| CyTOF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |
| Cell Depletion | Dialynas, D.P. <i>et al.</i> (1983) <i>Immunol. Rev.</i> 74 :29; Martin, P. <i>et al.</i> (2000) <i>Blood</i> 96 :2511. | |
| Costimulation of T Cells | Bosselut, R. <i>et al.</i> (1999) <i>J. Exp. Med.</i> 190 :1517. | |
| Immunoprecipitation | Dialynas, D.P. <i>et al.</i> (1983) <i>J. Immunol.</i> 131 :2445. | |
| Inhibition of T Cell Function | Dialynas, D.P. <i>et al.</i> (1983) <i>J. Immunol.</i> 131 :2445; Dialynas, D.P. <i>et al.</i> (1983) <i>Immunol. Rev.</i> 74 :29; Kruman, I.I. <i>et al.</i> (1996) <i>Cell. Immunol.</i> 173 :236; Grakoui, A. <i>et al.</i> (1999) <i>Science</i> 285 :221. | |

DATA

Immunohistochemistry



CD4 in Mouse Intestine. CD4 was detected in immersion fixed frozen sections of mouse intestine using Rat Anti-Mouse CD4 Monoclonal Antibody (Catalog # MAB554) at 1 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Rat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS017) and counterstained with hematoxylin (blue). Specific staining was localized to plasma membranes of lymphocytes. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

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|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

CD4 is a type I membrane glycoprotein belonging to the immunoglobulin superfamily. It is expressed predominantly on thymocytes and a subset of mature T lymphocytes. CD4 functions in collaboration with the T cell receptor in the recognition of peptide antigens that are presented by class II major histocompatibility complexes. CD4 also has been shown to be a coreceptor of HIV entry and specifically binds gp120, the external envelope glycoprotein of HIV.