Mouse CD4 Antibody

Monoclonal Rat IgG_{2B} Clone # GK1.5

Catalog Number: MAB554

DESCRIPTION

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 either lyophilized or as a 0.2 µm filtered solution in PBS.

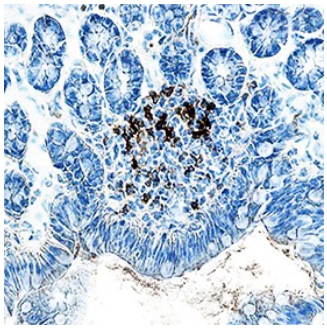
APPLICATIONS

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. *et al.* (1983) Immunol. Rev. **74**:29; Martin, P. *et al.* (2000) Blood **96**:2511.	
Costimulation of T Cells	Bosselut, R. *et al.* (1999) J. Exp. Med. **190**:1517.	
Immunoprecipitation	Dialynas, D.P. *et al.* (1983) J. Immunol. **131**:2445.	
Inhibition of T Cell Function	Dialynas, D.P. *et al.* (1983) J. Immunol. **131**:2445; Dialynas, D.P. *et al.* (1983) Immunol. Rev. **74**:29; Kruman, I.I. *et al.* (1996) Cell. Immunol. **173**:236; Grakoui, A. *et al.* (1999) Science **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

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.** ● 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.

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