Revision 1

Store at +4C

#96127

CD4 (RM4-5) Rat mAb (FITC Conjugate)

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F, FC-FP, FC-L	M	Endogenous	Rat IgG2a kappa	#P06332	12504

Product Usage Information

For optimal flow cytometry results, we recommend 0.25 µg of antibody per test.

Application	Dilution
Immunofluorescence (Frozen)	1:50 - 1:200
Flow Cytometry (Fixed/Permeabilized)	1:200
Flow Cytometry (Live)	1:200

Storage

Supplied in 10 mM NaH_2PO_4, 150 mM NaCl, 0.09% NaN_3, 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4ºC. Do not aliquot the antibody. Protect from light. Do not freeze.

Specificity/Sensitivity

CD4 (RM4-5) Rat mAb (FITC Conjugate) recognizes endogenous levels of total CD4 protein. This antibody detects an epitope within the extracellular domain.

Source / Purification

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.

Description

This Cell Signaling Technology antibody is conjugated to FITC and tested in-house for direct flow cytometric analysis in mouse cells.

Background

Cluster of Differentiation 4 (CD4) is a glycoprotein composed of an amino-terminal extracellular domain (four domains: D1-D4 with Ig-like structures), a transmembrane part, and a short cytoplasmic tail. CD4 is expressed on the surface of T helper cells, regulatory T cells, monocytes, macrophages, and dendritic cells, and plays an important role in the development and activation of T cells. On T cells, CD4 is the co-receptor for the T cell receptor (TCR), and these two distinct structures recognize the Antigen–Major Histocompatibility Complex (MHC). Specifically, the D1 domain of CD4 interacts with the β2-domain of the MHC class II molecule. CD4 ensures specificity of the TCR–antigen interaction, prolongs the contact between the T cell and the antigen presenting cell, and recruits the tyrosine kinase Lck, which is essential for T cell activation (1).

Background References

1. Zamoyska, R. (1994) *Immunity* 1, 243-6.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Applications Key

IF-F: Immunofluorescence (Frozen) **FC-FP:** Flow Cytometry (Fixed/Permeabilized) **FC-L:** Flow Cytometry (Live)

Cross-Reactivity Key

M: Mouse

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in

any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.