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## CD4 (RPA-T4) Mouse mAb (FITC Conjugate)

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

<b>Applications:</b> IF-IC, FC-FP, FC-L	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P01730	<b>Entrez-Gene Id:</b> 920
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<b>Product Usage Information</b>	<b>Application</b> Immunofluorescence (Immunocytochemistry) Flow Cytometry (Fixed/Permeabilized) Flow Cytometry (Live)	<b>Dilution</b> 1:1600 - 1:3200 1:20 1:20
<b>Storage</b>	Supplied in 10 mM NaH <sub>2</sub> PO <sub>4</sub> , 150 mM NaCl, 0.09% NaN <sub>3</sub> , 0.1% gelatin, pH 7.2. This product is stable for 12 months when stored at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	CD4 (RPA-T4) Mouse mAb (FITC Conjugate) recognizes endogenous levels of total CD4 protein. This antibody detects an epitope within the extracellular domain.	
<b>Source / Purification</b>	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.	
<b>Description</b>	This Cell Signaling Technology antibody is conjugated to FITC and tested in-house for direct flow cytometric analysis in human cells.	
<b>Background</b>	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 $\beta$ 2-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).	
<b>Background References</b>	1. Zamoyska, R. (1994) <i>Immunity</i> 1, 243-6.	
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).	
<b>Applications Key</b>	<b>IF-IC:</b> Immunofluorescence (Immunocytochemistry) <b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized) <b>FC-L:</b> Flow Cytometry (Live)	
<b>Cross-Reactivity Key</b>	<b>H:</b> Human	
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