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## IL-4 (D19A10) Rabbit mAb (Alexa Fluor® 488 Conjugate)

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

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P05112	<b>Entrez-Gene Id:</b> 3565
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity/Sensitivity</b>	IL-4 (D19A10) Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total IL-4 protein.	
<b>Source / Purification Description</b>	Monoclonal antibody is produced by immunizing animals with recombinant human IL-4 protein. This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated IL-4 (D19A10) Rabbit mAb #12227.	
<b>Background</b>	Interleukin-4 (IL-4) is a cytokine secreted by activated T cells, basophils, and mast cells (1,2). While it contributes to many immunomodulatory responses, it is mainly recognized as the cytokine responsible for eliciting differentiation of naive T cells into Th2 lineage cells that are defined by their secretion of IL-4, IL-5, and IL-10 (3). In addition, IL-4 contributes to immunoglobulin class switching by inducing the production of IgE from B cells (4,5). IL-4 acts through the IL-4 receptor, leading to tyrosine phosphorylation and activation of the Stat6 transcription factor (6).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Yokota, T. et al. (1986) <i>Proc Natl Acad Sci USA</i> 83, 5894-8.</li> <li>2. Grabstein, K. et al. (1986) <i>J Exp Med</i> 163, 1405-14.</li> <li>3. Kopf, M. et al. (1993) <i>Nature</i> 362, 245-8.</li> <li>4. Kotowicz, K. and Callard, R.E. (1993) <i>Eur J Immunol</i> 23, 2250-6.</li> <li>5. Thyphronitis, G. et al. (1989) <i>Proc Natl Acad Sci USA</i> 86, 5580-4.</li> <li>6. Hou, J. et al. (1994) <i>Science</i> 265, 1701-6.</li> </ol>	
<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>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)	
<b>Cross-Reactivity Key</b>	<b>H:</b> Human	
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