#12227 Store at -20°C

IL-4 (D19A10) Rabbit mAb

☑ 100 µl
(10 western blots)

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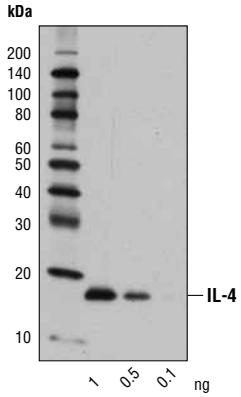
Entrez-Gene ID #3565
Swiss-Prot Acc. #P05112

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, F Endogenous	H	17 kDa	Rabbit IgG**

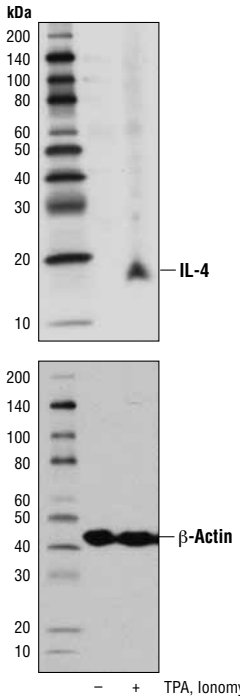
Background: Interleukin-4 (IL-4) is a cytokine secreted by activated T cells, basophils, and mast cells (1,2). While it contributes to many immunomodulatory responses, it is mainly recognized as the cytokine responsible for eliciting differentiation of naive T cells into Th2 lineage cells that are defined 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).

Specificity/Sensitivity: IL-4 (D19A10) Rabbit mAb recognizes endogenous levels of total IL-4 protein.

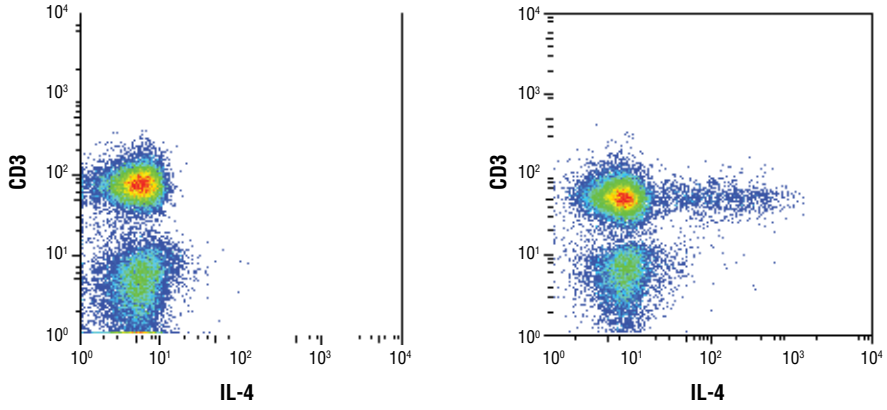
Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant human IL-4 protein.



Western blot analysis of recombinant Human Interleukin-4 (hIL-4) #8919 using IL-4 (D19A10) Rabbit mAb.



◀ *Western blot analysis of extracts from purified CD4+ human peripheral blood mononuclear cells, activated with anti-CD3 and anti-CD28 in Th2-inducing conditions for 12 d untreated (-) or treated (+) with TPA #4174 (40 nM, 6 hr), Ionomycin #9995 (3 µM, 6 hr), and Brefeldin A #9972 (300 ng/ml, last 5 hr of stimulation), using IL-4 (D19A10) Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).*



Flow cytometric analysis of human peripheral blood mononuclear cells, untreated (left) or treated (right) with TPA #4174 (40 nM, 6 hr), Ionomycin #9995 (2 µM, 6 hr) and Brefeldin A #9972 (1 µg/ml, last 5 hr of stimulation), using a CD3 antibody and IL-4 (D19A10) Rabbit mAb. Anti-rabbit IgG (H+L), F(ab')2 Fragment (Alexa Fluor® 647 Conjugate) #4414 was used as a secondary antibody. Analysis was performed on cells in the lymphocyte gate.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Flow Cytometry	1:800

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.

Background References:

(1) Yokota, T. et al. (1986) *Proc Natl Acad Sci USA* 83, 5894-8.
(2) Grabstein, K. et al. (1986) *J Exp Med* 163, 1405-14.
(3) Kopf, M. et al. (1993) *Nature* 362, 245-8.
(4) Kotowicz, K. and Callard, R.E. (1993) *Eur J Immunol* 23, 2250-6.
(5) Thyphronitis, G. et al. (1989) *Proc Natl Acad Sci USA* 86, 5580-4.
(6) Hou, J. et al. (1994) *Science* 265, 1701-6.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.