

#2653 Store at -20°C

# Stat4 (C46B10) Rabbit mAb

✓ 100 µl (10 western blots)



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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #6775  
Swiss-Prot Acc. #Q14765

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, ChIP Endogenous	H, M, R	81 kDa	Rabbit IgG**

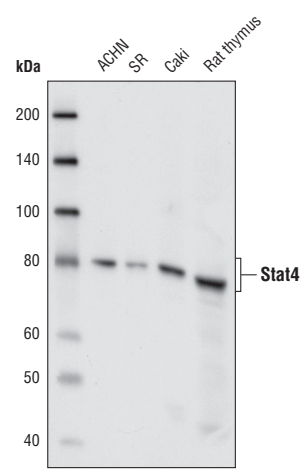
**Background:** The Jak-Stat signaling pathway is utilized by a large number of cytokines, growth factors and hormones (1). Receptor-mediated tyrosine phosphorylation of Jak family members triggers phosphorylation of Stat proteins resulting in their nuclear translocation, binding to specific DNA elements and subsequent activation of transcription. The remarkable range and specificity of responses regulated by the Stats is determined in part by the tissue-specific expression of different cytokine receptors, Jaks and Stats as well as by the combinatorial coupling of various Stat members to different receptors. Stat4 is predominantly expressed in the spleen, thymus and testis and has been most extensively investigated as the mediator of IL-12 responses (3-8).

**Specificity/Sensitivity:** Stat4 (C46B10) Rabbit mAb detects endogenous levels of total Stat4 protein.

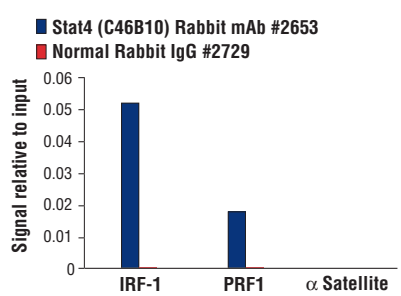
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys151 of Stat4.

### Background References:

- (1) Darnell, J.E. et al. (1994) *Science* 264, 1415-1421.
- (2) Leonard, W.J. and O'Shea, J.J. (1998) *Annu. Rev. Immunol.* 16, 293-322.
- (3) Zhong, Z. et al. (1994) *Proc. Natl. Acad. Sci. USA* 91, 4806-4810.
- (4) Yamamoto, K. et al. (1994) *Mol. Cell Biol.* 14, 4342-4349.
- (5) Jacobson, N.G. et al. (1995) *J. Exp. Med.* 181, 1755-1762.
- (6) Bacon, C.M. et al. (1995) *Proc. Natl. Acad. Sci. USA* 92, 7307-7311.
- (7) Thierfelder, W.E. et al. (1996) *Nature* 382, 171-174.
- (8) Kaplan, M.H. et al. (1996) *Nature* 382, 174-177.



Western blot analysis of extracts from ACHN, SR and Caki cell lines and from rat thymus using Stat4 (C46B10) Rabbit mAb.



Chromatin immunoprecipitations were performed with cross-linked chromatin from  $4 \times 10^6$  NK-92 cells starved of IL-2 overnight then treated with IL-12 (10ng/ml) for 4h and either 20 µl of Stat4 (C46B10) Rabbit mAb #2653 or 2 µl of Normal Rabbit IgG #2729 using SimpleChIP™ Enzymatic Chromatin IP Kit (Magnetic Beads) #9003. The enriched DNA was quantified by real-time PCR using human IRF-1 promoter primers, human PRF1 promoter primers, and SimpleChIP™ Human α Satellite Repeat Primers #4486. The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

**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
Chromatin IP	1:25

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**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.**

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.

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