

Jak2 (D2E12) XP® Rabbit mAb

- Small 100 µl (10 western blots)
- Large 300 µl (30 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.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IHC-P, IF-IC, F Endogenous	H, M, R, (Mk, Hm, C, X, B, Dg, Pg, Hr)	125 kDa	Rabbit IgG**

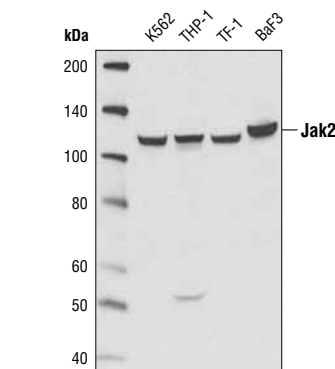
Background: Members of the Janus family of tyrosine kinases (Jak1, Jak2, Jak3 and Tyk2) are activated by ligands binding to a number of associated cytokine receptors (1). Upon cytokine receptor activation, Jak proteins become autophosphorylated and phosphorylate their associated receptors to provide multiple binding sites for signaling proteins. These associated signaling proteins, such as Stats (2), Shc (3), insulin receptor substrates (4) and focal adhesion kinase (FAK) (5), typically contain SH2 or other phospho-tyrosine-binding domains.

Specificity/Sensitivity: Jak2 (D2E12) XP® Rabbit mAb detects endogenous levels of total Jak2 protein. No cross reactivity was observed with other family members.

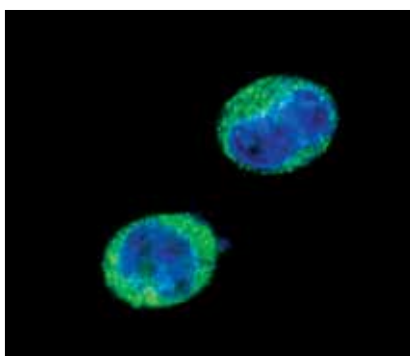
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro841 of Jak2.

Background References:

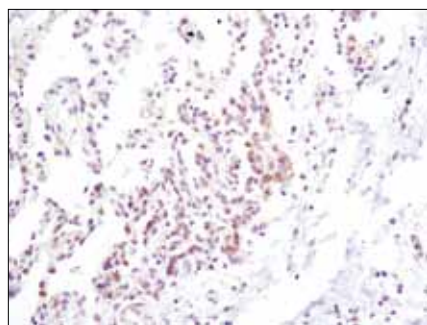
- Leonard, W.J. and O'Shea, J.J. (1998) *Annu. Rev. Immunol.* 16, 293–322.
- Darnell, J.E. (1997) *Science* 277, 1630–1635.
- VanderKuur, J. et al. (1995) *J. Biol. Chem.* 270, 7587–7593.
- Argetsinger, L.S. et al. (1995) *J. Biol. Chem.* 270, 14685–14692.
- Zhu, T. et al. (1998) *J. Biol. Chem.* 273, 10682–10689.



Western blot analysis of extracts from K562, THP-1, TF-1 and BaF3 cell lines using Jak2 (D2E12) XP® Rabbit mAb.



Confocal immunofluorescent analysis of K562 cells using Jak2 (D2E12) XP® Rabbit mAb (green). Blue pseudocolor = DRAQ5® (fluorescent DNA dye).



◀ Immunohistochemical analysis of paraffin-embedded human lung carcinoma using Jak2 (D2E12) XP® Rabbit mAb.

Entrez-Gene ID #3717
 Swiss-Prot Acc. #060674

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.

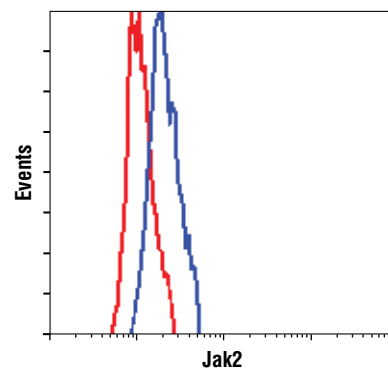
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunohistochemistry (Paraffin)	1:400†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.	
Immunofluorescence (IF-IC)	1:100
Flow Cytometry	1:100

For application 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 companion products.



Flow cytometric analysis of K-562 cells using Jak2 (D2E12) XP® Rabbit mAb (blue) compared to a nonspecific negative control antibody (red).

This product is sold under a license from Chemicon International, Inc. relating to U.S. Patent No. 5,658,791.

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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.