

Jak2 (D2E12) XP[®] Rabbit mAb (Sepharose[®] Bead Conjugate)



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Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
IP Endogenous	H, M, R, (Mk)	125 kDa	Rabbit IgG

Description: This Cell Signaling Technology antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated Sepharose[®] beads. Jak2 (D2E12) XP[®] Rabbit mAb (Sepharose[®] Bead Conjugate) is useful for the immunoprecipitation of Jak2 proteins.

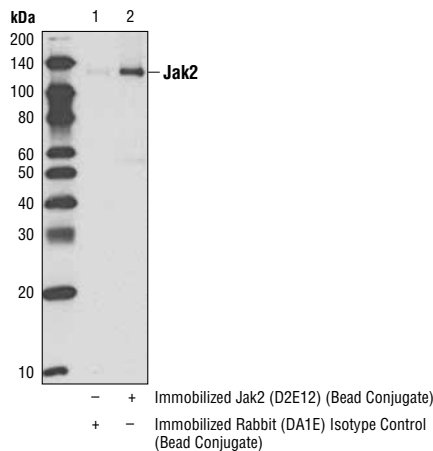
Background: Members of the Janus family of tyrosine kinases (Jak1, Jak2, Jak3 and Tyk2) are activated by ligands binding to a number of associated cytokine receptors (1). Upon cytokine receptor activation, Jak proteins become autophosphorylated and phosphorylate their associated receptors to provide 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 (Sepharose[®] Bead Conjugate) 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:

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



Immunoprecipitation of extracts from K562 cells, using Jak2 (D2E12) XP[®] Rabbit mAb (Sepharose[®] Bead Conjugate) (lane 2). XP[®] Rabbit IgG (DA1E) mAb Isotype Control (Sepharose[®] Bead Conjugate) #3423 was used as a negative control (lane 1). The western blot was probed using Jak2 (D2E12) XP[®] Rabbit mAb #3230 and detected with Mouse Anti-Rabbit IgG (Conformation Specific) (L27A9) mAb #3678 followed by Anti-mouse IgG, HRP-linked Antibody #7076.

Entrez-Gene ID #3717
UniProt ID #060674

Storage: Supplied in 10mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 ug/ml BSA, 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity other than human is determined by western blot using the unconjugated antibody.**

Directions for Use: Add 10 µl of well-vortexed beads to 200 µl of cell lysate at 1 mg/ml in 1X Cell Lysis Buffer (10X) #9803. See protocol for more details.

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.