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:

Storage: 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.

Recommended Antibody Dilutions:
Western blotting 1:1000
Immunoprecipitation 1:100
Immunohistochemistry (Parafin) 1:400†
Unmasking buffer: Citrate
Antibody diluent: SignalStain® Antibody Diluent #8112
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.
Immunofluorescence (IF-IC) 1:200
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.