

#3771 Store at -20°C

Phospho-Jak2 (Tyr1007/1008) Antibody

- 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.

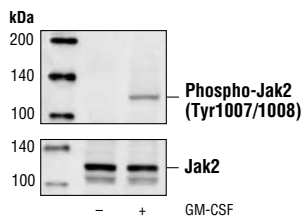
Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, (B)	125 kDa	Rabbit**

Background: The Janus family of tyrosine kinases, consisting of Jak1, Jak2, Jak3 and Tyk2, associates with a variety of cytokine receptors and are activated by ligand binding to these receptors (1). Upon ligand binding to cytokine receptors, Jaks autophosphorylate and phosphorylate their associated receptors, providing multiple binding sites for signaling proteins containing SH2 or other phosphotyrosine-binding domains, including Stats (2), Shc (3), insulin receptor substrates (4) and focal adhesion kinase (FAK) (5).

The tyrosine residues 1007/1008 of Jak2 in the putative activation loop are the homologous tyrosine residues 1054/1055 in Tyk2, which are important in the regulation of Tyk2 kinase activity (6).

Specificity/Sensitivity: Phospho-Jak2 (Tyr1007/1008) Antibody detects endogenous levels of Jak2 only when phosphorylated at Tyr1007/1008. This antibody may cross-react with phospho-Jak1.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide (KLH-coupled) corresponding to residues surrounding Tyr1007/1008 of human Jak2. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from TF-1 cells, starved for 18 hours and treated with GM-CSF (25 ng/ml for 10 minutes), using Phospho-Jak2 (Tyr1007/1008) Antibody (upper) or control Jak2 antibody (lower).

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.
- (6) Gauzzi, M.C. et al. (1996) *J. Biol. Chem.* 271, 20494-20500.

Entrez-Gene ID # 3717
Swiss-Prot Acc. # O60674

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

*Species cross-reactivity is determined by western blot.

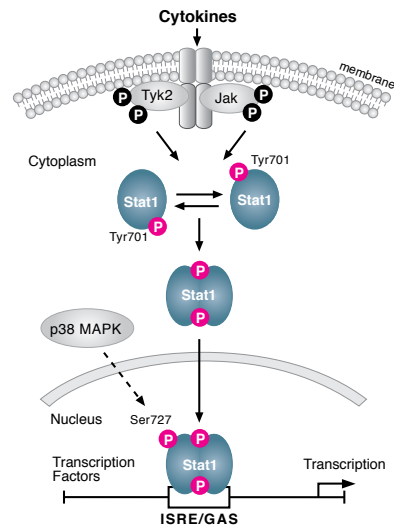
**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western Blotting	1:1000
Immunoprecipitation	1:50

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.



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.