Store at -20°C

PhosphoPlus® Jak2 (Tyr1007/ Tyr1008) Antibody Duet

#8224

Support: +1-978-867-2388 (U.S.)
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New 06/18

Entrez-Gene ID #142
UniProt ID #P09874

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
P-Jak2 (Y1007/1008) (C80C3) Rabbit mAb	3776	100 µl	125 kDa	Rabbit IgG
Jak2 (D2E12) XP® Rabbit mAb	3230	100 µl	125 kDa	Rabbit IgG

See www.cellsignal.com for individual component applications, species cross-reactivity, dilutions, and additional application protocols.

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.

Description: PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

Specificity/Sensitivity: Jak2 (D2E12) XP® Rabbit mAb detects endogenous levels of total Jak2 protein. No cross-reactivity was observed with other family members. Phospho-Jak2 (Tyr1007/1008) (C80C3) Rabbit mAb detects endogenous levels of Jak2 when phosphorylated at Tyr1007/1008. This antibody can also detect single phosphorylation at either 1007 or 1008. This antibody may cross-react with phospho-Jak1 and phospho-Tyk2.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro841 of human Jak2 protein and a phosphopeptide corresponding to a region surrounding Tyr1007/1008 of human Jak2 protein.

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.*

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, 1630-5.

(3) VanderKuur, J. et al. (1995) *J Biol Chem* 270, 7587-93.

(4) Argetsinger, L.S. et al. (1995) *J Biol Chem* 270, 14685-92.

(5) Zhu, T. et al. (1998) *J Biol Chem* 273, 10682-9.

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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **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.