ANTI-PHOSPHO-JAK 2 (pTyr^{1007,1008})

Developed in Rabbit, Affinity Isolated Antibody

Product Number **J 3376**

Product Information

Product Description

Anti-phospho-JAK 2 (pTyr^{1007,1008}) was developed in rabbit using as immunogen a synthetic phosphopeptide derived from a region of JAK 2 that contains tyrosine 1007 and 1008. The serum is affinity purified using epitope-specific affinity chromatography. The antibody is preabsorbed to remove any reactivity towards the non-tyrosine phosphorylated JAK 2 protein.

Anti-phospho-JAK 2 (pTyr^{1007,1008}) recognizes the phosphorylated form of JAK 2 protein (130 kDa) that contains a phosphate on tyrosines 1007 and 1008. The antibody does not cross-react with the non-tyrosine phosphorylated JAK 2 protein. The antibody is reactive with human and mouse JAK 2.

JAK 2 and other related tyrosine kinases are involved in cytoplasmic signal transduction.[1] In response to cytokines, interferons and other related factors, JAKs are activated via phosphorylation at two adjacent tyrosine residues and one or more serine residues.[1, 2] The activation of JAKs can lead to phosphorylation of STAT (signal transducers and activators of transcription) proteins, which translocate to the nucleus.[1] In the nucleus, STAT proteins can modify transcription of numerous genes. The tyrosine at positions 1007 and 1008 appear to be autophosphor-ylation sites. Phosphorylated tyrosine at position 1007 is critical for JAK 2 kinase activity.

Reagent

Anti-phospho-JAK 2 (pTyr^{1007,1008}) is supplied as 25 µg of antibody in phosphate buffer, pH 7.4, with no preservatives added.

Storage/Stability

Store at –70 °C. For extended storage, upon initial thawing, freeze in working aliquots. Avoid repeated freezing and thawing to prevent denaturing of the antibody. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 6 months when stored appropriately.

Product Profile

A recommended working concentration of 0.1 to 0.5 µg/ml is determined by immunoblotting using extracts from mouse 3T3-L1 cells and human A431 carcinoma cells exposed to LIF.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Ihle, J.N., Cell, **84,** 331-334 (1996).
2. Wong, M., et al., J. Biol. Chem., **276,** 11427-14311 (2001).
3. Zhang, X.F., et al., Blood, **97,** 3342-3348 (2001).

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