

**JAK2 (6B4) Mouse mAb (PBS Only)****db6585-PBS****Package :** 可询价**Product Name :** JAK2 (6B4) Mouse mAb (PBS Only)**Cat.No.:** db6585-PBS**Synonyms :** JAK2; Tyrosine-protein kinase JAK2; Janus kinase 2; JAK-2**Application :** IHC-P**Reactivity :** Human, Rat, Mouse**Host species :** Mouse**Background**

Non-receptor tyrosine kinase involved in various processes such as cell growth, development, differentiation or histone modifications. Mediates essential signaling events in both innate and adaptive immunity. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors such as growth hormone (GHR), prolactin (PRLR), leptin (LEPR), erythropoietin (EPOR), thrombopoietin (THPO); or type II receptors including IFN-alpha, IFN-beta, IFN-gamma and multiple interleukins (PubMed/7615558). Following ligand-binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins (PubMed/9618263). Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, cell stimulation with erythropoietin (EPO) during erythropoiesis leads to JAK2 autophosphorylation, activation, and its association with erythropoietin receptor (EPOR) that becomes phosphorylated in its cytoplasmic domain. Then, STAT5 (STAT5A or STAT5B) is recruited, phosphorylated and activated by JAK2. Once activated, dimerized STAT5 translocates into the nucleus and promotes the transcription of several essential genes involved in the modulation of erythropoiesis. Part of a signaling cascade that is activated by increased cellular retinol and that leads to the activation of STAT5 (STAT5A or STAT5B) (PubMed/21368206). In addition, JAK2 mediates angiotensin-2-induced ARHGEF1 phosphorylation (PubMed/20098430). Plays a role in cell cycle by phosphorylating CDKN1B (PubMed/21423214). Cooperates with TEC through reciprocal phosphorylation to mediate cytokine-driven activation of FOS transcription. In the nucleus, plays a key role in chromatin by specifically mediating phosphorylation of 'Tyr-41' of histone H3 (H3Y41ph), a specific tag that promotes exclusion of CBX5 (HP1 alpha) from chromatin (PubMed/19783980).

**Immunogen**

Synthetic peptide conjugated to KLH

**Gene ID**

3717

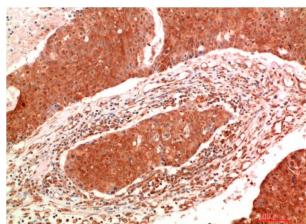
**Swiss Prot**

O60674

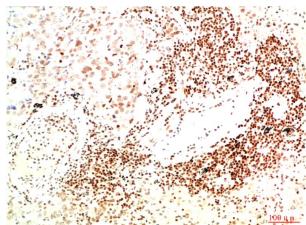
**Synonyms**

JAK2; Tyrosine-protein kinase JAK2; Janus kinase 2; JAK-2

<b>Reactivity</b>	Human, Rat, Mouse
<b>Application</b>	IHC-P
<b>Calculated MW</b>	120 kDa
<b>Host species</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clonality No.</b>	6B4-8G2-1C4
<b>Isotype</b>	IgG1
<b>Purity</b>	Affinity Purification
<b>Conjugation</b>	Un-conjugated
<b>Concentration</b>	1 mg/mL
<b>Formulation</b>	PBS Only
<b>Storage Stability</b>	Store at -20°C. Recommended to aliquot into single-use vials. Supplied in 1X PBS (pH 7.4). BSA and Azide Free. Stable for 12 months from date of receipt.



Immunohistochemistry analysis of paraffin-embedded Human Breast Carcinoma Tissue using JAK2 (6B4) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunohistochemical analysis of paraffin-embedded Human tonsils using JAK2 (6B4) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.