

## Basic Information

<b>Product Name</b>	Anti-JAK2 Antibody (Clone#COG-10)	
<b>Gene Name</b>	JAK2	
<b>Source</b>	Rabbit	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, ICC/IF	
<b>Contents</b>	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	A synthesized peptide derived from human JAK2 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.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	Affinity-chromatography	
<b>Observed MW</b>	131 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-200 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-200 ImmunoPrecipitation (IP): 1:50-100	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

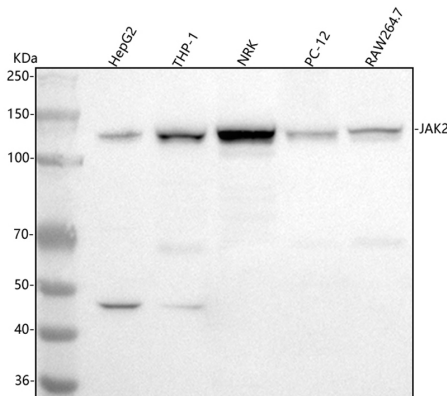
Janus kinase 2, commonly called JAK2, is a human protein that has been implicated in signaling by members of the type II cytokine receptor family, the GM-CSF receptor family, the gp130 receptor family, and the single chain receptors. Exactly, JAK2 kinase is a member of a family of tyrosine kinases involved in cytokine receptor signaling. The JAK2 gene is mapped to 9p24.1. The JAK2 gene encodes a 1,132-amino acid protein that shares 95% sequence similarity to rat and pig Jak2. JAK2 is constitutively associated with the prolactin receptor and that it is activated and tyrosine phosphorylated upon PRL binding to the PRL receptor.

JAK2, and more specifically just its intact N-terminal domain, binds to EPOR in the endoplasmic reticulum and promotes its cell surface expression. The human JAK2 is present in the nucleus of hematopoietic cells and directly phosphorylates tyr41 on histone H3.

## Reference

Anti-JAK2 Antibody (Clone#COG-10)被引用在9文献中。

## Selected Validation Data



Western blot analysis of anti-JAK2 antibody (BM4165). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,

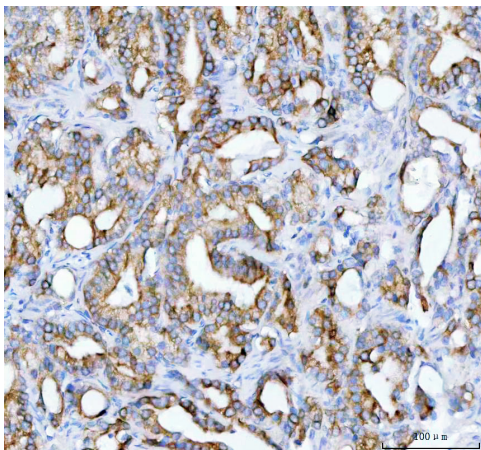
Lane 2: human THP-1 whole cell lysates,

Lane 3: human NRK whole cell lysates,

Lane 4: rat PC-12 whole cell lysates,

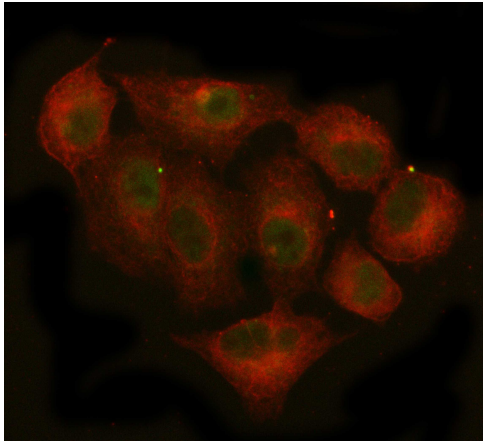
Lane 5: mouse RAW264.7 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-JAK2 antigen affinity purified monoclonal antibody (BM4165) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for JAK2 at approximately 131 kDa. The expected band size for JAK2 is at 131 kDa.



IHC analysis of JAK2 using anti-JAK2 antibody (BM4165) .

JAK2 was detected in a paraffin-embedded section of human prostate cancer tissue. The tissue section was incubated with rabbit anti-JAK2 Antibody (BM4165) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of JAK2 using anti-JAK2 antibody (BM4165) and anti-Beta Tubulin antibody (M01857-3).

JAK2 was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-JAK2 Antibody (BM4165) at a dilution of 1:100. Dylight488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and Cy3-conjugated Anti-mouse IgG Secondary Antibody (red)(Catalog#BA1031) were used as secondary antibody.