

## Anti-JAK2 Monoclonal Antibody

Catalog Number: M00027

### Overview

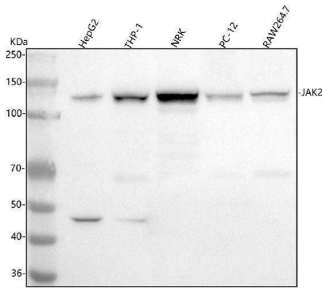
Product Name	Anti-JAK2 Monoclonal Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-JAK2 Monoclonal Antibody catalog # M00027. Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.
Application	IP, IF, IHC, ICC, WB
Clonality	Monoclonal COG-10
Formulation	Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	O60674

### Technical Details

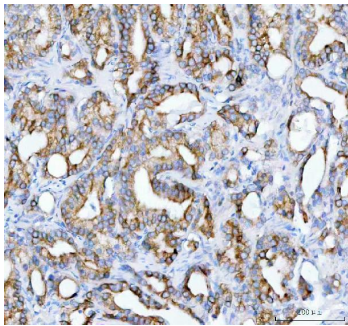
Immunogen	A synthesized peptide derived from human JAK2 Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, cell stimulation with erythropoietin (EPO) during erythropoiesis leads to JAK2 autophosphorylation, activation, 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.
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5mg/ml
Purification	Affinity-chromatography
Suggested Dilutions	WB 1:500-2000 IHC 1:50-200 ICC/IF 1:50-200 IP 1:50-100



## Anti-JAK2 Monoclonal Antibody (M00027) Images



Western blot analysis of JAK2 using anti-JAK2 antibody (M00027). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. 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: rat 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 nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-JAK2 antigen affinity purified monoclonal antibody (Catalog # M00027) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for JAK2 at approximately 131 kDa. The expected band size for JAK2 is at 131 kDa.

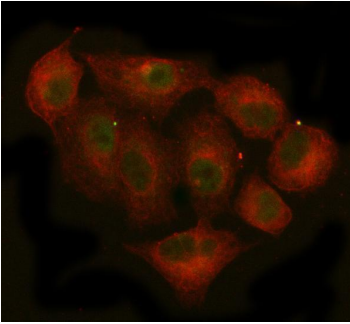


IHC analysis of JAK2 using anti-JAK2 antibody (M00027). JAK2 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-JAK2 Antibody (M00027) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



Western blot analysis of JAK2 using anti-JAK2 antibody (M00027). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: Normal group-rat colon tissue lysates, Lane 2: Model group-rat colon tissue lysates, Lane 3: Triditional Chinese medicine treatment (low dose)-rat colon tissue lysates, Lane 4: Triditional Chinese medicine treatment (medium dose)-rat colon tissue lysates, Lane 5: Triditional Chinese medicine treatment (high dose)-rat colon tissue lysates, Lane 6: Western medicine treatment-rat colon tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-JAK2 antigen affinity purified monoclonal antibody (Catalog # M00027) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times

with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with ChemiDoc MP system. A specific band was detected for JAK2 at approximately 131 kDa. The expected band size for JAK2 is at 131 kDa.



IF analysis of JAK2 using anti-JAK2 antibody (M00027) and anti-Beta Tubulin antibody (M01857-3). JAK2 was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated at 1:50 with rabbit anti-JAK2 Antibody (M00027) and mouse anti-Beta Tubulin antibody (M01857-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

## 2 Publications Citing This Product

1. PubMed ID: 33152901, He J,Zhang W,Di T,Meng J,Qi Y,Li G,Zhang Y,Su H,Yan W.Water extract of sporoderm-broken spores of Ganoderma lucidum enhanced pd-l1 antibody efficiency through downregulation and relieved complications of pd-l1 monoclonal antibody.Biomed Pharmacother.2020

2. PubMed ID: 33542641, Zhang Q,Duan HX,Li RL,Sun JY,Liu J,Peng W,Wu CJ,Gao YX. Inducing Apoptosis and Suppressing Inflammatory Reactions in Synovial Fibroblasts are Two Important Ways for Guizhi-Shaoyao-Zhimu Decoction Against Rheumatoid Arthritis. J Inflamm Res.2021 Jan 26;14:

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