

# Anti-JAK2 Antibody [SY0245]

ET1607-35



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell
<b>Molecular Wt:</b>	Predicted band size: 131 kDa
<b>Clone number:</b>	SY0245

**Description:** JAK2 (Janus kinase 2) belongs to the emerging family of non-receptor Janus tyrosine kinases, which regulate a spectrum of cellular functions downstream of activated cytokine receptors in the lympho-hematopoietic system. Immunological stimuli, such as interferons and cytokines, induce recruitment of Stat transcription factors to cytokine receptor-associated JAK2. JAK2 then phosphorylates proximal Stat factors, which subsequently dimerize, translocate to the nucleus and bind to cis elements upstream of target gene promoters to regulate transcription. The canonical JAK/Stat pathway is integral to maintaining a normal immune system by stimulating proliferation, differentiation, survival and host resistance to pathogens. Altering JAK/Stat signaling to reduce cytokine induced pro-inflammatory responses represents an attractive target for anti-inflammatory therapies.

**Immunogen:** Synthetic peptide within C-terminal human JAK2.

**Positive control:** TF-1 cell lysate, K-562 cell lysate, THP-1 cell lysate, RAW264.7 cell lysate, C6 cell lysate, Jurkat cell lysate, MEF cell lysate, A549, MCF-7, NIH/3T3.

**Subcellular location:** Endomembrane system, Cytoplasm, Nucleus.

**Database links:** SwissProt: O60674 Human | Q62120 Mouse | Q62689 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500-1:2,000
<b>IF-Cell</b>	1:100-1:500

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

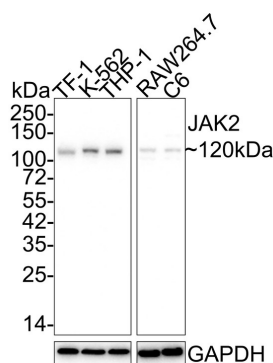
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## Images

**Fig1:** Western blot analysis of JAK2 on different lysates with Rabbit anti-JAK2 antibody (ET1607-35) at 1/2,000 dilution.

Lane 1: TF-1 cell lysate  
 Lane 2: K-562 cell lysate  
 Lane 3: THP-1 cell lysate  
 Lane 4: RAW264.7 cell lysate  
 Lane 5: C6 cell lysate



Lysates/proteins at 15 µg/Lane.

Predicted band size: 131 kDa  
 Observed band size: 120 kDa

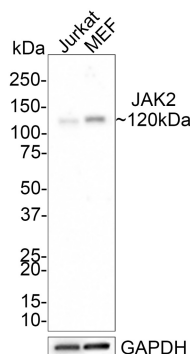
Exposure time: 5 minutes 10 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET1607-35) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Fig2:** Western blot analysis of JAK2 on different lysates with Rabbit anti-JAK2 antibody (ET1607-35) at 1/500 dilution.

Lane 1: Jurkat cell lysate  
 Lane 2: MEF cell lysate



Lysates/proteins at 20 µg/Lane.

Predicted band size: 131 kDa  
 Observed band size: 120 kDa

Exposure time: 2 minutes;

6% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET1607-35) at 1/500 dilution was used in 5% NFDN/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

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**Fig3:** Western blot analysis of JAK2 on different lysates with Rabbit anti-JAK2 antibody (ET1607-35) at 1/2,000 dilution.

Lane 1: A549-si NT cell lysate  
Lane 2: A549-si JAK2 cell lysate

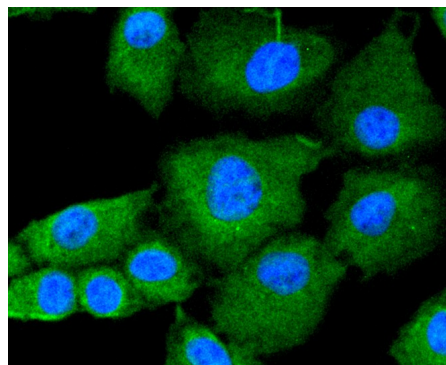
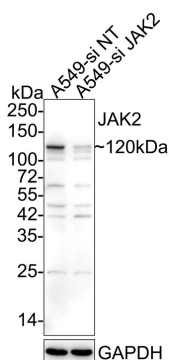
Lysates/proteins at 15 µg/Lane.

Predicted band size: 131 kDa  
Observed band size: 120 kDa

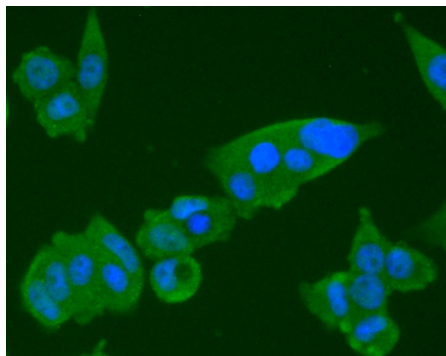
Exposure time: 45 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDN/TBST for 1 hour at room temperature. The primary antibody (ET1607-35) at 1/2,000 dilution was used in 5% NFDN/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/100,000 dilution was used for 1 hour at room temperature.



**Fig4:** ICC staining JAK2 in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig5:** ICC staining JAK2 in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

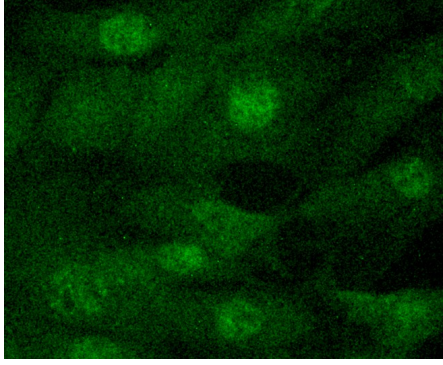
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**Fig6:** ICC staining JAK2 in NIH/3T3 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Gan, X.T. et al. 2015. Myocardial Hypertrophic Remodeling and Impaired Left Ventricular Function in Mice with a Cardiac-Specific Deletion of Janus Kinase 2. *The American journal of pathology*. 185: 3202-10.
2. Tang, H. et al. 2011. Changes in growth hormone (GH), GH receptor, and GH signal transduction in hippocampus of congenital hypothyroid rats. *J. Neurosci. Res.* 89: 248-255.

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