



## Mouse Monoclonal Antibody **JAK2** conjugated to Sepharose Beads

CatalogNo: **ANT8330-S**

Size 200ul

Storage Store at 4 °C for frequent use

### Description

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays.

### **JAK2 (ANT0003R) Rabbit mAb**

Formulation: 50% slurry in PBS pH 7.2 with 0.01mg NaN<sub>3</sub> preservative.

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat,

#### Applications

- WB, IHC, IF, IP, ELISA

#### MW

- 131kD (Calculated)
- 131kD (Observed)

#### Isotype

- IgG, Kappa

## **Recommended Dilution Ratios**

### **IP**

## **Basic Information**

Clonality	Monoclonal
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Clone Number	ANT0003R
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# Immunogen Information

Specificity      Endogenous

## Target Information

Gene name      JAK2

Protein Name      JAK2

Organism	Gene ID	UniProt ID
Human	<a href="#">3717;</a>	<a href="#">O60674;</a>
Mouse	<a href="#">16452;</a>	<a href="#">Q62120;</a>
Rat	<a href="#">24514;</a>	<a href="#">Q62689;</a>

Cellular      Cytoplasm, Nucleus  
Localization

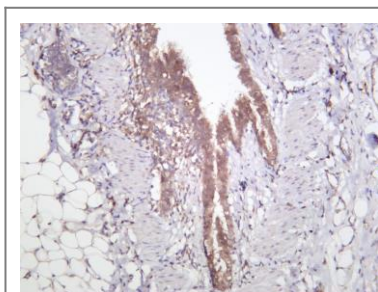
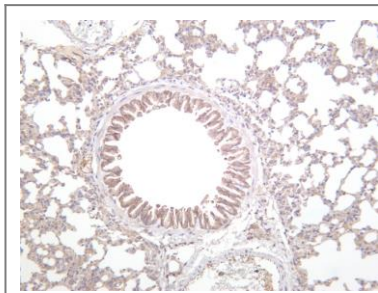
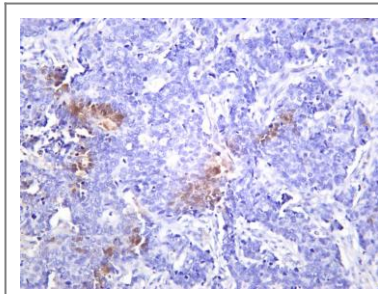
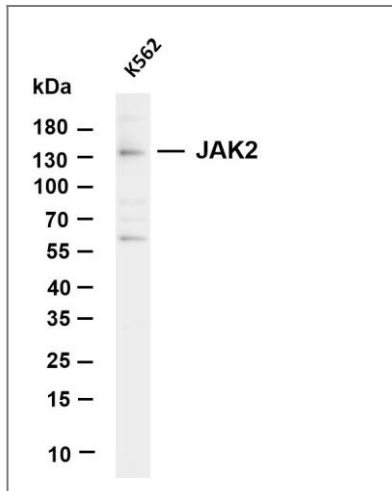
Tissue specificity      Ubiquitously expressed throughout most tissues.

**Function**

Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,Disease:Chromosomal aberrations involving JAK2 are found in both chronic and acute forms of eosinophilic, lymphoblastic and myeloid leukemia. Translocation t(8;9)(p22;p24) with PCM1 links the protein kinase domain of JAK2 to the major portion of PCM1. Translocation t(9;12)(p24;p13) with ETV6.,Disease:Defects in JAK2 are a cause of acute myelogenous leukemia (AML) [MIM:601626]. AML is a malignant disease in which hematopoietic precursors are arrested in an early stage of development.,Disease:Defects in JAK2 are a cause of susceptibility to Budd-Chiari syndrome [MIM:600880]. Budd-Chiari syndrome is a spectrum of disease states, including anatomic abnormalities and hypercoagulable disorders, resulting in hepatic venous outflow occlusion. Clinical manifestations observed in the majority of patients include hepatomegaly, right upper quadrant pain, and abdominal ascites.,Disease:Defects in JAK2 are associated with familial myelofibrosis [MIM:254450]. Myelofibrosis with myeloid metaplasia is a myeloproliferative disease with annual incidence of 0.5-1.5 cases per 100,000 individuals and age at diagnosis around 60 (an increased prevalence is noted in Ashkenazi Jews). Clinical manifestations depend on the type of blood cell affected and may include anemia, pallor, splenomegaly, hypermetabolic state, petechiae, ecchymosis, bleeding, lymphadenopathy, hepatomegaly, portal hypertension.,Disease:Defects in JAK2 are associated with polycythemia vera (PV) [MIM:263300]. PV, the most common form of primary polycythemia, is caused by somatic mutation in a single hematopoietic stem cell leading to clonal hematopoiesis. PV is a myeloproliferative disorder characterized predominantly by erythroid hyperplasia, but also by myeloid leukocytosis, thrombocytosis, and splenomegaly. Familial cases of PV are very rare and usually manifest in elderly patients.,Disease:Defects in JAK2 gene may be a cause of essential thrombocythemia (ET) [MIM:187950]. ET is characterized by elevated platelet levels due to sustained proliferation of megakaryocytes, and frequently lead to thrombotic and haemorrhagic complications.,Domain:Possesses two phosphotransferase domains. The second one probably contains the catalytic domain (By similarity), while the presence of slight differences suggest a different role for domain 1.,Function:Plays a role in leptin signaling and control of body weight (By similarity). Tyrosine kinase of the non-receptor type, involved in interleukin-3 and probably interleukin-23 signal transduction.,ANTM:Leptin promotes phosphorylation on tyrosine residues, including phosphorylation on Tyr-813.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily.,similarity:Contains 1 FERM

domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 SH2 domain.,subcellular location:Wholly intracellular, possibly membrane associated.,subunit:Interacts with SIRPA and SH2B1 (By similarity). Interacts with IL23R, SKB1 and STAM2.,tissue specificity:Expressed in blood, bone marrow and lymph node.,

## Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-JAK2 (ANT0003R) antibody. The HRPconjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: K562 Predicted band size: 131kDa Observed band size: 131kDa

Human lung carcinoma was stained with anti-JAK2 (ANT0003R) rabbit antibody

Mouse lung was stained with anti-JAK2 (ANT0003R) rabbit antibody

Rat lung was stained with anti-JAK2 (ANT0003R) rabbit antibody



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