

**JAK2 (phospho Tyr570) Polyclonal Antibody**

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|------------------------------|---|
| <b>Catalog No :</b>          | YP0306  |
| <b>Reactivity :</b>          | Human;Mouse;Rat   |
| <b>Applications :</b>        | WB;IHC;IF;ELISA   |
| <b>Target :</b>              | JAK2  |
| <b>Fields :</b>              | >>EGFR tyrosine kinase inhibitor resistance;>>Chemokine signaling pathway;>>PI3K-Akt signaling pathway;>>Necroptosis;>>Signaling pathways regulating pluripotency of stem cells;>>JAK-STAT signaling pathway;>>Th1 and Th2 cell differentiation;>>Th17 cell differentiation;>>Cholinergic synapse;>>Prolactin signaling pathway;>>Adipocytokine signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Growth hormone synthesis, secretion and action;>>Leishmaniasis;>>Toxoplasmosis;>>Tuberculosis;>>Hepatitis B;>>Influenza A;>>Kaposi sarcoma-associated herpesvirus infection;>>Herpes simplex virus 1 infection;>>Pathways in cancer;>>Chemical carcinogenesis - receptor activation;>>PD-L1 expression and PD-1 checkpoint pathway in cancer;>>Lipid and atherosclerosis |
| <b>Gene Name :</b>           | JAK2  |
| <b>Protein Name :</b>        | Tyrosine-protein kinase JAK2  |
| <b>Human Gene Id :</b>       | 3717  |
| <b>Human Swiss Prot No :</b> | O60674  |
| <b>Mouse Gene Id :</b>       | 16452   |
| <b>Mouse Swiss Prot No :</b> | Q62120  |
| <b>Rat Gene Id :</b>         | 24514   |
| <b>Rat Swiss Prot No :</b>   | Q62689  |
| <b>Immunogen :</b>           | The antiserum was produced against synthesized peptide derived from human JAK2 around the phosphorylation site of Tyr570. AA range:541-590  |

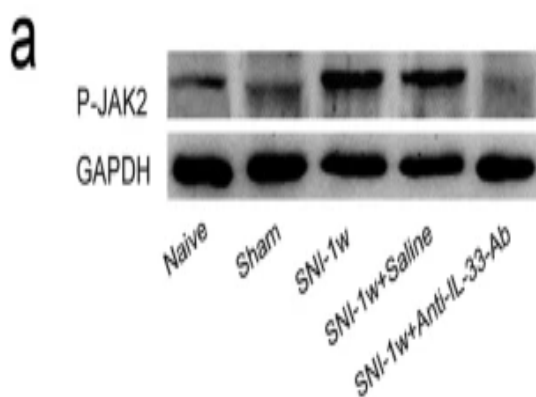
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|-------------------------------|--|
| <b>Specificity :</b>          | Phospho-JAK2 (Y570) Polyclonal Antibody detects endogenous levels of JAK2 protein only when phosphorylated at Y570.  |
| <b>Formulation :</b>          | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.  |
| <b>Source :</b>               | Polyclonal, Rabbit,IgG   |
| <b>Dilution :</b>             | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200  |
| <b>Purification :</b>         | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.  |
| <b>Concentration :</b>        | 1 mg/ml  |
| <b>Storage Stability :</b>    | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Observed Band :</b>        | 130kD  |
| <b>Cell Pathway :</b>         | Chemokine;Jak_STAT;Adipocytokine;  |
| <b>Background :</b>           | This gene product is a protein tyrosine kinase involved in a specific subset of cytokine receptor signaling pathways. It has been found to be constitutively associated with the prolactin receptor and is required for responses to gamma interferon. Mice that do not express an active protein for this gene exhibit embryonic lethality associated with the absence of definitive erythropoiesis. [provided by RefSeq, Jul 2008],  |
| <b>Function :</b>             | 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 incl |
| <b>Subcellular Location :</b> | Endomembrane system ; Peripheral membrane protein . Cytoplasm . Nucleus .  |
| <b>Expression :</b>           | Ubiquitously expressed throughout most tissues.  |
| <b>Tag :</b>                  | orthogonal   |

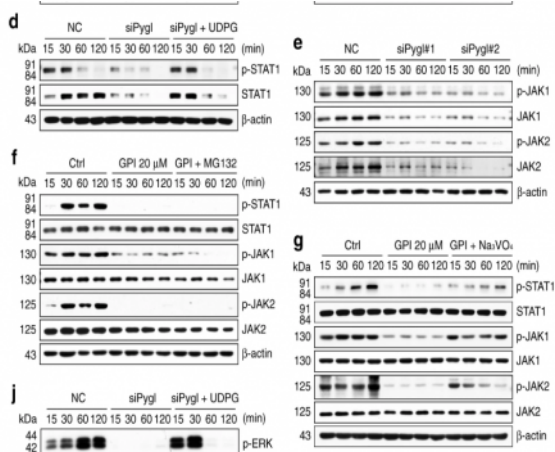
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|------------------------|---------|
| <b>Sort :</b>          | 1       |
| <b>No4 :</b>           | 1       |
| <b>Host :</b>          | Rabbit  |
| <b>Modifications :</b> | Phospho |

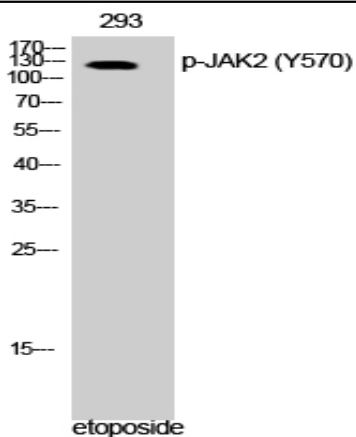
## Products Images



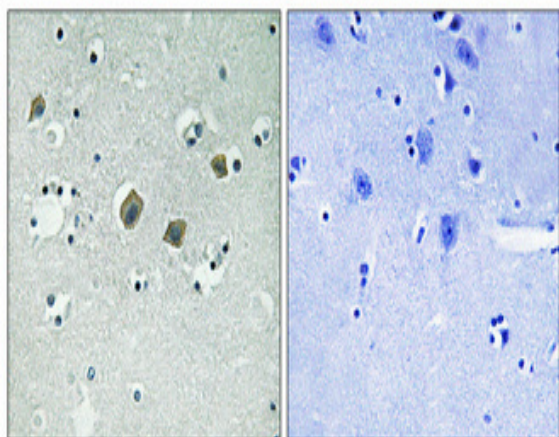
Li, HN., Yang, QQ., Wang, WT. et al. Red nucleus IL-33 facilitates the early development of mononeuropathic pain in male rats by inducing TNF- $\alpha$  through activating ERK, p38 MAPK, and JAK2/STAT3. *J Neuroinflammation* 18, 150 (2021).



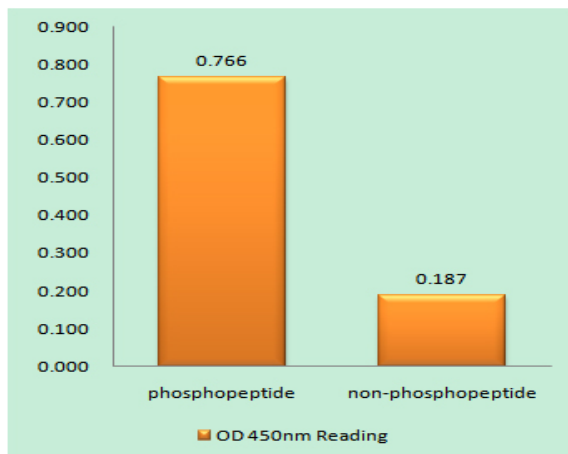
Ma, J., Wei, K., Liu, J. et al. Glycogen metabolism regulates macrophage-mediated acute inflammatory responses. *Nat Commun* 11, 1769 (2020).



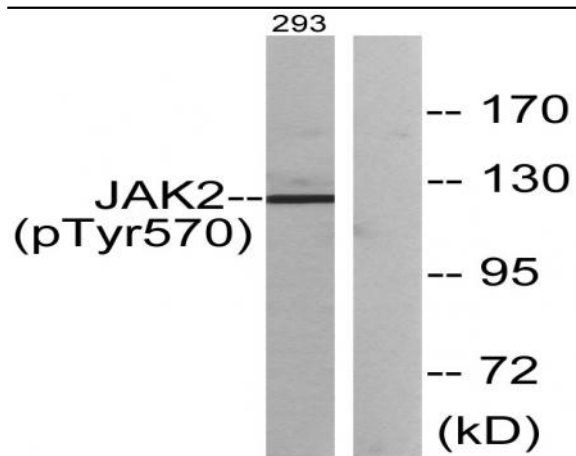
Western Blot analysis of 293 cells using Phospho-JAK2 (Y570) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using JAK2 (Phospho-Tyr570) Antibody



Western blot analysis of lysates from 293 cells treated with etoposide 25uM 24h, using JAK2 (Phospho-Tyr570) Antibody. The lane on the right is blocked with the phospho peptide.