

## Rabbit JAK2 Polyclonal Antibody | anti-JAK2 antibody

JAK2 (phospho Tyr570) Polyclonal Antibody

|                               |                       |                                        |                                                           |
|-------------------------------|-----------------------|----------------------------------------|-----------------------------------------------------------|
| CATALOG #<br><b>AAA293953</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human, Mouse, Rat</b> | APPLICATIONS<br><b>Immunohistochemistry, Western Blot</b> |
|-------------------------------|-----------------------|----------------------------------------|-----------------------------------------------------------|

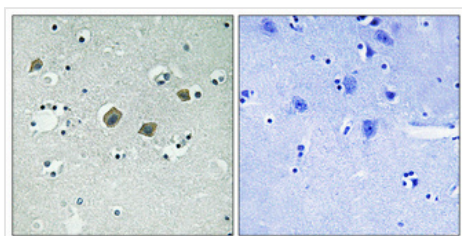
### PRODUCT SYNONYMS

JAK2; Polyclonal Antibody; JAK2 (phospho Tyr570) Polyclonal Antibody; Tyrosine-protein kinase JAK2; Janus kinase 2; JAK-2; anti-JAK2 antibody

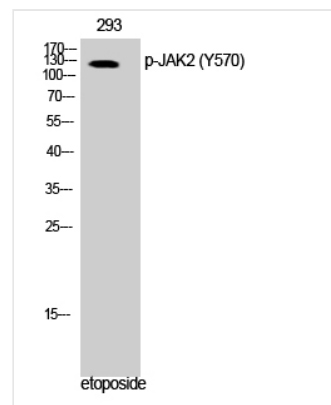
### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                       |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                                |
| Reactivity                                     | Human, Mouse, Rat                                                                                                                                     |
| Clonality                                      | Polyclonal                                                                                                                                            |
| Applicable Applications for anti-JAK2 antibody | IHC (Immunohistochemistry), WB (Western Blot)                                                                                                         |
| Preparation and Storage                        | Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles. |

### IMAGES



#### IHC (Immunohistochemistry)

Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000.  
Not yet tested in other applications.


#### WB (Western Blot)

Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000.  
Not yet tested in other applications.

ADDITIONAL INFORMATION

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|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-JAK2 antibody | Non-receptor tyrosine kinase involved in various processes such as cell growth, development, differentiation or histone modifications. Mediates essential signaling events in both innate and adaptive immunity. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors such as growth hormone (GHR), prolactin (PRLR), leptin (LEPR), erythropoietin (EPOR), thrombopoietin (THPO); or type II receptors including IFN-alpha, IFN-beta, IFN-gamma and multiple interleukins (PubMed:7615558). Following ligand-binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins (PubMed:9618263). Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. 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. Once activated, dimerized STAT5 translocates into the nucleus and promotes the transcription of several essential genes involved in the modulation of erythropoiesis. Part of a signaling cascade that is activated by increased cellular retinol and that leads to the activation of STAT5 (STAT5A or STAT5B)(PubMed:21368206). In addition, JAK2 mediates angiotensin-2-induced ARHGEF1 phosphorylation (PubMed:20098430). Plays a role in cell cycle by phosphorylating CDKN1B (PubMed:21423214). Cooperates with TEC through reciprocal phosphorylation to mediate cytokine-driven activation of FOS transcription. In the nucleus, plays a key role in chromatin by specifically mediating phosphorylation of 'Tyr-41' of histone H3 (H3Y41ph), a specific tag that promotes exclusion of CBX5 (HP1 alpha) from chromatin (PubMed:19783980). |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                                 |
|----------------------------------|---------------------------------------------------------------------------------|
| NCBI GI #                        | 4826776                                                                         |
| NCBI GeneID                      | 3717                                                                            |
| NCBI Accession #                 | NP_004963.1                                                                     |
| NCBI GenBank Nucleotide #        | NM_004972.3                                                                     |
| UniProt Accession #              | O60674; O14636; O75297                                                          |
| Molecular Weight                 | 130,674 Da                                                                      |
| NCBI Official Full Name          | tyrosine-protein kinase JAK2                                                    |
| NCBI Official Synonym Full Names | Janus kinase 2                                                                  |
| NCBI Official Symbol             | JAK2                                                                            |
| NCBI Official Synonym Symbols    | JTK10; THCYT3                                                                   |
| NCBI Protein Information         | tyrosine-protein kinase JAK2; JAK-2; Janus kinase 2 (a protein tyrosine kinase) |
| UniProt Protein Name             | Tyrosine-protein kinase JAK2                                                    |
| UniProt Gene Name                | JAK2                                                                            |
| UniProt Synonym Gene Names       | JAK-2                                                                           |
| UniProt Entry Name               | JAK2_HUMAN                                                                      |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/jak2-antibody-immunohistochemistry-western-blot-elisa/293953>