Leader in Biomolecular Solutions for Life Science

Phospho-JAK2-Y1007/1008 Rabbit pAb

Catalog No.: AP0531

58 Publications

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Basic Information

Observed MW
125 kDa

Calculated MW
131 kDa

Category
Polyclonal Antibodies

Applications
WB, IF/ICC, IF-P, IHC-P, ELISA

Cross Reactivity
Human, Mouse, Rat

Background

This gene encodes a non-receptor tyrosine kinase that plays a central role in cytokine and growth factor signalling. The primary isoform of this protein has an N-terminal FERM domain that is required for erythropoietin receptor association, an SH2 domain that binds STAT transcription factors, a pseudokinase domain and a C-terminal tyrosine kinase domain. Cytokine binding induces autophosphorylation and activation of this kinase. This kinase then recruits and phosphorylates signal transducer and activator of transcription (STAT) proteins. Growth factors like TGF-beta 1 also induce phosphorylation and activation of this kinase and translocation of downstream STAT proteins to the nucleus where they influence gene transcription. Mutations in this gene are associated with numerous inflammatory diseases and malignancies. This gene is a downstream target of the pleiotropic cytokine IL6 that is produced by B cells, T cells, dendritic cells and macrophages to produce an immune response or inflammation. Disregulation of the IL6/JAK2/STAT3 signalling pathways produces increased cellular proliferation and myeloproliferative neoplasms of hematopoietic stem cells. A nonsynonymous mutation in the pseudokinase domain of this gene disrupts the domains inhibitory effect and results in constitutive tyrosine phosphorylation activity and hypersensitivity to cytokine signalling. This gene and the IL6/JAK2/STAT3 signalling pathway is a therapeutic target for the treatment of excessive inflammatory responses to viral infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

Recommended Dilutions

WB	1:400 - 1:5000
IF/ICC	1:4000 - 1:16000
IF-P	1:4000 - 1:16000
IHC-P	1:50 - 1:200

ELISA
Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements.

Immunogen Information

Gene ID
3717

Swiss-Prot
O60674

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
JTK10; Phospho-JAK2-Y1007/1008

Contact

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Product Information

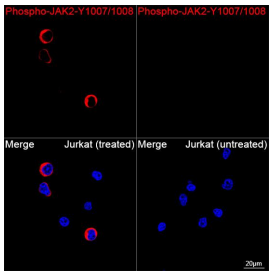
Source
Rabbit

Isotype
IgG

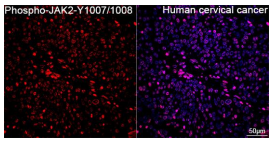
Purity
Affinity purification

Storage
Store at -20℃

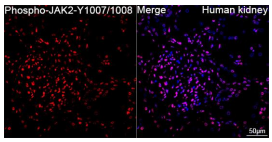
Validation Data



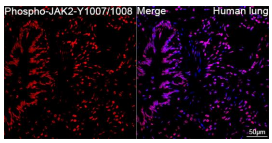
Confocal imaging of Jurkat cells (treated with pervanadate) and Jurkat cells (untreated) using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531, dilution 1:7000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



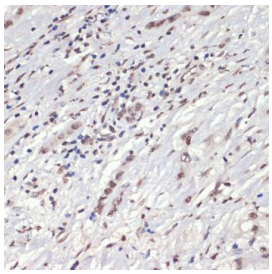
Confocal imaging of paraffin-embedded Human cervical cancer tissue using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531, dilution 1:7000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



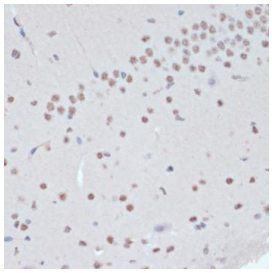
Confocal imaging of paraffin-embedded Human kidney tissue using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531, dilution 1:7000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



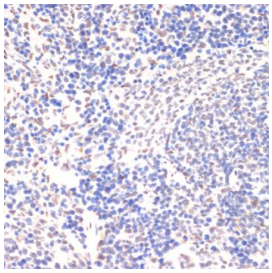
Confocal imaging of paraffin-embedded Human lung tissue using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531, dilution 1:7000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer (pH 6.0) prior to IF staining. Objective: 40x.



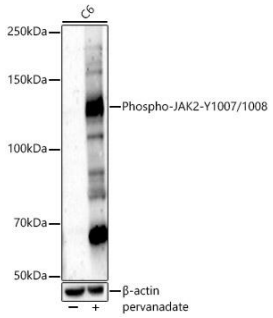
Immunohistochemistry analysis of paraffin-embedded Human liver cancer using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531) at dilution of 1:200 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse brain using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531) at dilution of 1:200 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat spleen using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531) at dilution of 1:200 (40x lens). Microwave antigen retrieval performed with 0.01M Tris/EDTA Buffer (pH 9.0) prior to IHC staining.



Western blot analysis of lysates from C6 cells, using Phospho-JAK2-Y1007/1008 Rabbit pAb (AP0531) at 1:400 dilution. C6 cells were treated with Pervanadate (1 mM) at 37℃ for 30 minutes after serum-starvation overnight.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 25μg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 60s.

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