Phospho-JAK2-Y1008 Rabbit pAb

Catalog NO.: AP0772

Basic Information

Observed MW
120kDa

Calculated MW
131kDa

Category
Phosphorylated Antibodies

Applications
WB, ELISA

Cross-Reactivity
Human

Conjugation
Unconjugated

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	1:500 - 1:2000

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-Y1008

Contact

Product Information

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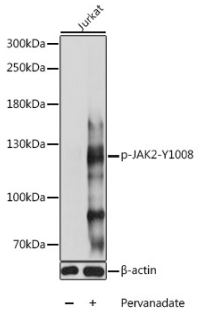
Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20°C. Avoid freeze / thaw cycles.
Buffer: PBS with 0.01% thimerosal,50% glycerol,pH7.3.

Validation Data



Western blot analysis of lysates from Jurkat cells, using Phospho-JAK2-Y1008 Rabbit pAb (AP0772) at 1:2000 dilution. Jurkat cells were treated with Pervanadate (1mM) for 30 minutes.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% BSA.
Detection: ECL Basic Kit (RM00020).
Exposure time: 1s.

For research use only. Not for therapeutic or diagnostic purposes.

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