A19629

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JAK2 Rabbit mAb

Catalog No.: A19629 Recombinant 29 Publications

Basic Information

Observed MW
130kDa/

Calculated MW
131kDa

Category
Monoclonal Antibody

Applications
WB,ELISA

Cross-Reactivity
Mouse

Clone number
ARC0108

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.

Contact

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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.

Immunogen Information

Gene ID
3717

Swiss Prot
O60674

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

Synonyms
JTK10; JAK2

Product Information

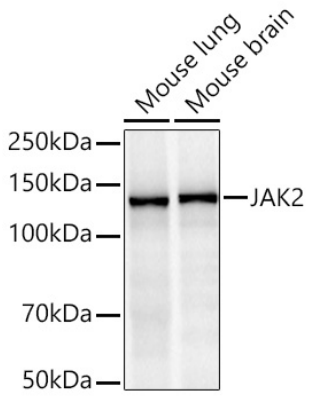
Source
Rabbit

Isotype
IgG

Purification
Affinity purification

Storage
Store at -20℃

Validation Data



Western blot analysis of various lysates using JAK2 Rabbit mAb (A19629) at 1:1000 dilution.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.
Lysates / proteins: 25 µg per lane.
Blocking buffer: 3 % nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 30s.

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