Product Data Sheet

Proteins





JAK2 Antibody (YA330)

HY-P80727 Cat. No.:

Synonyms: JAK2 Antibody (YA330) is a non-conjugated and Rabbit origined monoclonal antibody about

131 kDa, targeting to JAK2. It can be used for WB assays with tag free, in the background of

Human, Mouse.

Rabbit Host:

Reactivity: Human, Mouse Conjugation: Non-conjugated

SwissProt ID: 060674 Research Field: Cell Biology

Molecular Weight: Predicted band size: 131 kDa

PROPERTIES

Formulation	Supplied in 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol and 0.05% BSA. Preservative: 0.01% Sodium azide	
Purity	affinity purified	
Storage & Stability	Stored at -20°C for 1 year. Avoid repeated freeze / thaw cycles.	
Appearance	Liquid	
Application &	Application	Dilution Ratio
Dilution Ratio	WB	1:500-1:1,000
Shipping	Shipping with blue ice.	

DESCRIPTION

Background

JAK2: 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. [provided by RefSeq, Jul 2020]

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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