



JAK1 Rabbit pAb

Catalog#: A12424 | Size: 30μL/50μL/100μL

Main Information

Target	Host Species	Reactivity	Application	MW	Conjugated/Modification
JAK1	Rabbit	Human, Mouse, Rat	IF, WB, IP, IHC, ELISA	132kD (Observed)	Unmodified

Detailed Information

Recommended Dilution Ratio	IF 1:50-200; WB 1:200-1:1000; IHC 1:100-1:300; ELISA 1:10000; Not yet tested in other applications
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Specificity	JAK1 Polyclonal Antibody detects endogenous levels of JAK1 protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Storage	-15°C to -25°C/1 year(Do not lower than -25°C)
Concentration	1 mg/ml
MW(Observed)	132kD
Modification	Unmodified
Clonality	Polyclonal
Isotype	IgG

Antigen&Target Information

Immunogen	The antiserum was produced against synthesized peptide derived from human JAK1. AA range:988-1037
Specificity	JAK1 Polyclonal Antibody detects endogenous levels of JAK1 protein.
Gene Name	JAK1
Protein Name	Tyrosine-protein kinase JAK1
Other Name	JAK1 ;JAK1A ;JAK1B ;Tyrosine-protein kinase JAK1 ;Janus kinase 1 ;JAK-1



Database Link

Organism	Gene ID	SwissProt
Human	3716	P23458
Mouse		P52332

Background

This gene encodes a membrane protein that is a member of a class of protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. The encoded kinase phosphorylates STAT proteins (signal transducers and activators of transcription) and plays a key role in interferon-alpha/beta and interferon-gamma signal transduction. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2016].

Function

Catalytic activity:ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate.,Domain:Possesses two phosphotransferase domains. The second one probably contains the catalytic domain (By similarity), while the presence of slight differences suggest a different role for domain 1.,Domain:The FERM domain mediates interaction with JAKMIP1.,Function:Tyrosine kinase of the non-receptor type, involved in the IFN-alpha/beta/gamma signal pathway. Kinase partner for the interleukin (IL)-2 receptor.,sequence Caution:Translation N-terminally extended.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily.,similarity:Contains 1 FERM domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 SH2 domain.,subcellular location:Wholly intracellular, possibly membrane associated.,subunit:Interacts with IL31RA, JAKMIP1 and SHB.,tissue specificity:Expressed at higher levels in primary colon tumors than in normal colon tissue. The expression level in metastatic colon tumors is comparable to the expression level in normal colon tissue.

Cellular Localization

Endomembrane system; Peripheral membrane protein. Wholly intracellular, possibly membrane associated.

Tissue Expression

Expressed at higher levels in primary colon tumors than in normal colon tissue. The expression level in metastatic colon tumors is comparable to the expression level in normal colon tissue.

Research Areas

- EGFR tyrosine kinase inhibitor resistance
- PI3K-Akt signaling pathway
- Necroptosis
- Osteoclast differentiation
- Signaling pathways regulating pluripotency of stem cells
- NOD-like receptor signaling pathway
- JAK-STAT signaling pathway
- Th1 and Th2 cell differentiation
- Th17 cell differentiation
- Leishmaniasis
- Toxoplasmosis
- Tuberculosis
- Hepatitis C
- Hepatitis B
- Measles
- Human cytomegalovirus infection
- Influenza A



- Human papillomavirus infection
- Human T-cell leukemia virus 1 infection
- Kaposi sarcoma-associated herpesvirus infection
- Herpes simplex virus 1 infection
- Epstein-Barr virus infection
- Coronavirus disease - COVID-19
- Pathways in cancer
- Viral carcinogenesis
- Pancreatic cancer
- PD-L1 expression and PD-1 checkpoint pathway in cancer

Signaling Pathway

Cellular Processes >> Cell growth and death >> Necroptosis
Cellular Processes >> Cellular community - eukaryotes >> Signaling pathways regulating pluripotency of stem cells
Organismal Systems >> Immune system >> Toll-like receptor signaling pathway
Organismal Systems >> Immune system >> NOD-like receptor signaling pathway
Organismal Systems >> Immune system >> Th1 and Th2 cell differentiation
Organismal Systems >> Immune system >> Th17 cell differentiation
Organismal Systems >> Development and regeneration >> Osteoclast differentiation
Human Diseases >> Cancer: overview >> Pathways in cancer
Human Diseases >> Cancer: overview >> PD-L1 expression and PD-1 checkpoint pathway in cancer
Human Diseases >> Cancer: specific types >> Pancreatic cancer
Environmental Information Processing >> Signal transduction >> JAK-STAT signaling pathway
Environmental Information Processing >> Signal transduction >> PI3K-Akt signaling pathway

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