



JAK1 protein

Catalog#: AD0054 | Size: 30μL/50μL/100μL

Main Information

Reactivity	Application
Human	WB, SDS-PAGE

Detailed Information

Recommended Dilution Ratio	WB 1:500-2000
Formulation	Liquid in PBS
Source	E.coli
Purity	SDS-PAGE >90%
Storage	-20°C/6 month, -80°C for long storage

Antigen&Target Information

Sequence	Amino acid: 1-189, with his-MBP tag.
Gene Name	Jak1
Protein Name	JAK1 protein
Other Name	Tyrosine-protein kinase JAK1 ;Janus kinase 1 ;JAK-1

Database Link

Organism	Gene ID	SwissProt
Human	3716	P23458
Mouse		P52332

Background

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.

Function

protein amino acid phosphorylation, phosphorus metabolic process, phosphate metabolic process, cell surface receptor linked signal transduction, enzyme linked receptor protein signaling pathway, intracellular signaling cascade,protein kinase cascade, phosphorylation, peptidyl-tyrosine phosphorylation, peptidyl-tyrosine modification, cytokine-mediated signaling pathway, response to antibiotic.

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.

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

Contact Information

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