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Anti-Jak1 Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # AP53401

Product Information

Application	WB, IF, IP
Primary Accession	P23458
Other Accession	NM_002227
Reactivity	Human, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Immunogen	Purified recombinant human Jak1 protein fragments expressed in E.coli.
Purification	Ammonium sulfate precipitation
Calculated MW	133277

Additional Information

Gene ID	3716
Other Names	JAK 1; JAK 1A; JAK 1B; JAK-1; JAK1; JAK1_HUMAN; JAK1A; JAK1B; Janus kinase 1 (a protein tyrosine kinase); Janus kinase 1; JTK3; Tyrosine protein kinase JAK 1; Tyrosine protein kinase JAK1; Tyrosine-protein kinase JAK1.
Dilution	WB~~1:1000 IF~~1:50~200 IP~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	JAK1 (HGNC:6190)
Synonyms	JAK1A, JAK1B
Function	Non-membrane spanning protein tyrosine kinase that phosphorylates signal-transducing subunits of cytokine receptor complexes like IL2RB, IL10RA, IFNAR2, IL6ST, LIFR, OSMR and IL31RA (PubMed:11909529, PubMed:12133952, PubMed:15194700, PubMed:16239216, PubMed:28111307, PubMed:32750333, PubMed:7615558, PubMed:8232552, PubMed:9188471). Functionally, is involved in the IFN-alpha/beta/gamma signal pathway (PubMed:16239216, PubMed:28111307, PubMed:32750333, PubMed:7615558, PubMed:8232552). Mechanistically, in response to

interferon-binding to IFNAR1-IFNAR2 heterodimer, phosphorylates and activates its binding partner IFNAR2, creating docking sites for STAT proteins (PubMed:7759950). Directly phosphorylates STAT proteins but also activates STAT signaling through the transactivation of other JAK kinases associated with signaling receptors (PubMed:16239216, PubMed:32750333, PubMed:8232552). Involved in the MT-RNR2/humanin- mediated signaling pathway leading to STAT3 phosphorylation (PubMed:27384491). Binding of CNTF or the CLCF1/CLF heterodimer to CNTFR leads to IL6ST/gp130-LIFR dimerization followed by activation of JAK1 and JAK2 which in turns phosphorylate IL6ST/gp130 and LIFR (PubMed:11294841). The tyrosine phosphorylated signaling receptors serve in turn as docking proteins for STAT3 (PubMed:11294841). Involved in the oncostatin-M-mediated signaling pathway through both type I OSM receptor complex (heterodimers composed of LIFR and IL6ST) and type II OSM receptor complex (heterodimers composed of OSMR and IL6ST) (PubMed:9188471). Involved in the oncostatin-M-mediated signaling pathway through both type I OSM receptor complex (heterodimers composed of LIFR and IL6ST) and type II OSM receptor complex (heterodimers composed of OSMR and IL6ST) (PubMed:9188471). Involved in the Interleukin-31-mediated signaling pathway through the IL31 receptor complex (heterodimers composed of OSMR and IL31RA) (PubMed:15194700).

Cellular Location

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

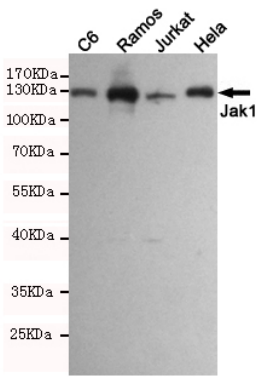
Tissue Location

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

Background

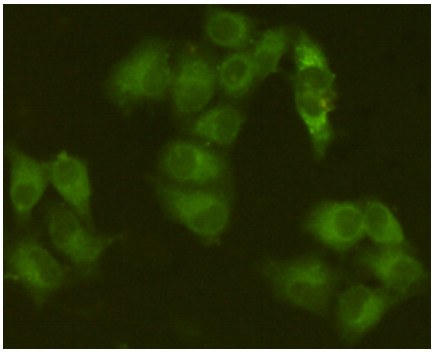
Tyrosine kinase of the non-receptor type, involved in the IFN-alpha/beta/gamma signal pathway. Kinase partner for the interleukin (IL)-2 receptor.

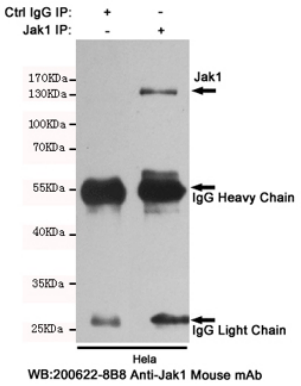
Images



Western blot analysis of extracts from C6,Ramos,Jurkat and Hela cell lysates using Jak1 mouse mAb (1:1000 diluted).Predicted band size:130KDa.Observed band size:130KDa.

Immunocytochemistry staining of HeLa cells fixed with 4% Paraformaldehyde and using anti-Jak1 mouse mAb (dilution 1:200).





Immunoprecipitation analysis of Hela cell lysates using Jak1 mouse mAb.

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