

Mouse Anti-JAK1 [MD348]: MC0192, MC0192RTU7

Intended Use: For Research Use Only

Description: JAK1 is a member of the Janus family of tyrosine kinases (JAK1, JAK2, JAK3, and TYK2), which are activated by ligands binding to a number of associated cytokine receptors and become autophosphorylated and phosphorylate their associated receptors to provide multiple binding sites for signaling proteins. These associated signaling proteins, such as Stats, Shc, insulin receptor substrates, and focal adhesion kinase (FAK), typically contain SH2 or other phospho-tyrosine-binding domains. JAK1 then phosphorylates proximal Stat factors, which subsequently dimerize, translocate to the nucleus and bind to cis elements upstream of target gene promoters to regulate transcription. Upon ligand binding, JAK1 undergoes tyrosine phosphorylation and catalytic activation in an interdependent manner. Phosphorylation of tyrosine residues at position 1022 and 1023 is believed to function in the activation of catalytic events. The canonical JAK-Stat pathway is integral to maintaining a normal immune system by stimulating proliferation, differentiation, survival, and host resistance to pathogens. Altering JAK-Stat signaling to reduce cytokine induced pro-inflammatory responses represents an attractive target for anti-inflammatory therapies.

Specifications

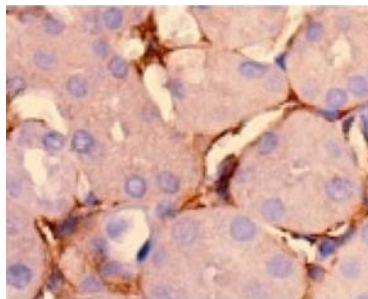
Clone:	MD348
Source:	Mouse
Isotype:	IgG2b/k
Reactivity:	Human, mouse, rat
Immunogen:	Mouse JAK1 epitope aa 796-815 within an internal region
Localization:	Membrane, cytoplasm
Formulation:	Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)
Storage:	Store at 2°- 8°C
Applications:	IHC, ELISA, IF, IP, WB
Package:	

Description	Catalog No.	Size
JAK1 [MD348] Concentrated	MC0192	1 ml
JAK1 [MD348] Prediluted	MC0192RTU7	7 ml

IHC Procedure*

Positive Control Tissue:	Kidney, colon, lung carcinoma
Concentrated Dilution:	20-200
Pretreatment:	Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
Incubation Time and Temp:	30-60 minutes @ RT
Detection:	Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE mouse kidney stained with anti-JAK1 using DAB

References:

1. Extracellular vesicle-packaged miR-181c-5p from epithelial ovarian cancer cells promotes M2 polarization of tumor-associated macrophages via the KAT2B/HOXA10 axis. Yang, S. et al. J Gene Med. e3446, 2022.
2. Jak-Stat signal transduction pathway through the eyes of cytokine class II receptor complexes. Kotenko, SV. Et al. Oncogene. 19: 2557-65, 2000.