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JIK Polyclonal Antibody

Catalog # AP70616

Product Information

Application	WB, E, IHC-P
Primary Accession	Q9H2K8
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	105406

Additional Information

Gene ID	51347
Other Names	TAOK3; DPK; JIK; KDS; MAP3K18; Serine/threonine-protein kinase TAO3; Cutaneous T-cell lymphoma-associated antigen HD-CL-09; CTCL-associated antigen HD-CL-09; Dendritic cell-derived protein kinase; JNK/SAPK-inhibitory kinase; Jun kinase-inhi
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. E~~N/A IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

Protein Information

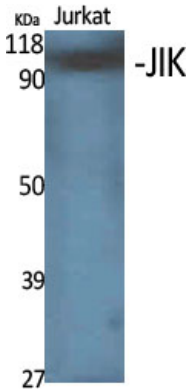
Name	TAOK3
Synonyms	DPK, JIK, KDS, MAP3K18
Function	Serine/threonine-protein kinase that acts as a regulator of the p38/MAPK14 stress-activated MAPK cascade and of the MAPK8/JNK cascade. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of upstream MAP2K3 and MAP2K6 kinases. Inhibits basal activity of the MAPK8/JNK cascade and diminishes its activation in response to epidermal growth factor (EGF). Positively regulates canonical T cell receptor (TCR) signaling by preventing early PTPN6/SHP1-mediated inactivation of LCK, ensuring sustained TCR signaling that is required for optimal activation and differentiation of T cells (PubMed:30373850). Phosphorylates PTPN6/SHP1 on 'Thr-394', leading to its polyubiquitination and subsequent proteasomal degradation (PubMed:38166031). Required for cell surface expression of metalloprotease ADAM10 on type 1 transitional B

	cells which is necessary for their NOTCH-mediated development into marginal zone B cells (By similarity). Also required for the NOTCH-mediated terminal differentiation of splenic conventional type 2 dendritic cells (By similarity). Positively regulates osteoblast differentiation by acting as an upstream activator of the JNK pathway (PubMed:32807497). Promotes JNK signaling in hepatocytes and positively regulates hepatocyte lipid storage by inhibiting beta-oxidation and triacylglycerol secretion while enhancing lipid synthesis (PubMed:34634521). Restricts age-associated inflammation by negatively regulating differentiation of macrophages and their production of pro-inflammatory cytokines (By similarity). Plays a role in negatively regulating the abundance of regulatory T cells in white adipose tissue (By similarity).
Cellular Location	Cytoplasm. Cell membrane; Peripheral membrane protein. Membrane raft. Lipid droplet. Note=Located primarily outside cell membrane rafts and remains outside upon canonical TCR ligation (PubMed:30373850). A small pool is detectable in cell membrane rafts in resting conditions but relocates outside the rafts upon TCR signaling (PubMed:30373850). Localizes to lipid droplets in hepatocytes (PubMed:34634521).
Tissue Location	Ubiquitously expressed at a low level, and highly expressed in peripheral blood leukocytes (PBLs), thymus, spleen, kidney, skeletal muscle, heart and liver.

Background

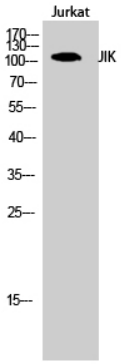
Serine/threonine-protein kinase that acts as a regulator of the p38/MAPK14 stress-activated MAPK cascade and of the MAPK8/JNK cascade. Acts as an activator of the p38/MAPK14 stress- activated MAPK cascade. In response to DNA damage, involved in the G2/M transition DNA damage checkpoint by activating the p38/MAPK14 stress-activated MAPK cascade, probably by mediating phosphorylation of upstream MAP2K3 and MAP2K6 kinases. Inhibits basal activity of MAPK8/JNK cascade and diminishes its activation in response epidermal growth factor (EGF).

Images



Western Blot analysis of various cells using JIK Polyclonal Antibody

Western Blot analysis of Jurkat cells using JIK Polyclonal Antibody



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.