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# Anti-JIK Antibody

Catalog # AP51547

## Product Information

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| **Application** | WB, IF/IC |
| **Primary Accession** | Q9H2K8 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 105406 |

## Additional Information

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| **Gene ID** | 51347 |
| **Other Names** | 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-inhibitory kinase; Kinase from chicken homolog A; hKFC-A; Thousand and one amino acid protein 3 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human JIK. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

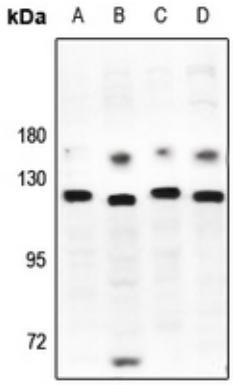
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|---|---|
| **Name** | TAOK3 |
| **Synonyms** | DPK, JIK, KDS, MAP3K18 |
| **Function** | Serine/threonine-protein kinase that acts as a regulator of the p38/MAPK14 stress-activated MAPK cascade and of the MAPK8/JNK cascade. In response to DNA damage, 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). |

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| | 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. |

## References

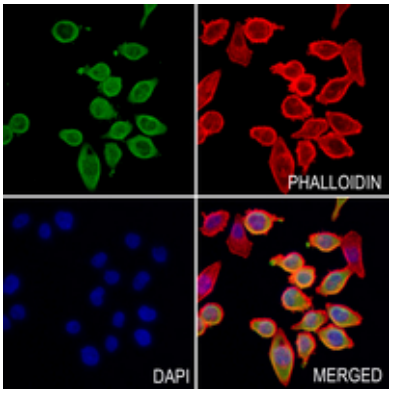

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Carter T.G.,et al.Submitted (AUG-1999) to the EMBL/GenBank/DDBJ databases.
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## Images




Western blot analysis of JIK expression in Jurkat (A), HEK293T (B), LO2 (C), AML12 (D) whole cell lysates. (Predicted band size: 105 kD; Observed band size: 110 kD)

Immunofluorescent analysis of JIK staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a




AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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