10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

JIK (TAOK3) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7012b

Specification

JIK (TAOK3) Antibody (C-term) - Product Information

Application	**IHC-P, WB,E**
Primary Accession	Q9H2K8
Other Accession	Q6DD27, Q53UA7, Q8BYC6, Q9I9E0
Reactivity	**Human**
Predicted	**Chicken, Mouse, Rat, Xenopus**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**105406**
Antigen Region	**671-700**

JIK (TAOK3) Antibody (C-term) - Additional Information

Gene ID 51347

Other Names
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, TAOK3, DPK, JIK, KDS, MAP3K18

Target/Specificity
This JIK (TAOK3) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 671-700 amino acids from the C-terminal region of human JIK (TAOK3).

Dilution
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
JIK (TAOK3) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

JIK (TAOK3) Antibody (C-term) - 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.

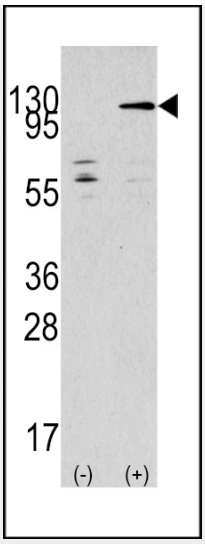
JIK (TAOK3) Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

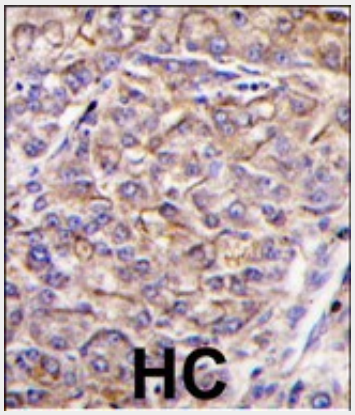
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

JIK (TAOK3) Antibody (C-term) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot analysis of TAOK3 (arrow) using rabbit polyclonal TAOK3 Antibody (C-term)(Cat.#AP7012b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the TAOK3 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with TAOK3 antibody (C-term)(Cat.#AP7012b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

JIK (TAOK3) Antibody (C-term) - Background

TAOK3 is negatively regulated by epidermal growth factor (EGF) and Inhibits the basal activity of Jun kinase. When TAOK3 is overexpressed, it may activate ERK1/ERK2 and JNK/SAPK.

JIK (TAOK3) Antibody (C-term) - References

Hartmann,T.B.,Br. J. Dermatol. 150 (2), 252-258 (2004)
Yustein,J.T.,Oncogene 22 (40), 6129-6141 (2003)
Yoneda,T.,J. Biol. Chem. 276 (17), 13935-13940 (2001)
Zhang,W.,Biochem. Biophys. Res. Commun. 274 (3), 872-879 (2000)