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HIPK3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7540B

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9H422
Other Accession	O88850, Q9ERH7
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	133743
Antigen Region	1127-1156

Additional Information

Gene ID	10114
Other Names	Homeodomain-interacting protein kinase 3, Androgen receptor-interacting nuclear protein kinase, ANPK, Fas-interacting serine/threonine-protein kinase, FIST, Homolog of protein kinase YAK1, HIPK3, DYRK6, FIST3, PKY
Target/Specificity	This HIPK3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1127-1156 amino acids from the C-terminal region of human HIPK3.
Dilution	WB~~1:2000 IHC-P~~1:100~500 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	HIPK3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HIPK3
Synonyms	DYRK6, FIST3, PKY

Function	Serine/threonine-protein kinase involved in transcription regulation, apoptosis and steroidogenic gene expression. Phosphorylates JUN and RUNX2. Seems to negatively regulate apoptosis by promoting FADD phosphorylation. Enhances androgen receptor-mediated transcription. May act as a transcriptional corepressor for NK homeodomain transcription factors. The phosphorylation of NR5A1 activates SF1 leading to increased steroidogenic gene expression upon cAMP signaling pathway stimulation. In osteoblasts, supports transcription activation: phosphorylates RUNX2 that synergizes with SPEN/MINT to enhance FGFR2- mediated activation of the osteocalcin FGF-responsive element (OCFRE).
Cellular Location	Cytoplasm. Nucleus
Tissue Location	Overexpressed in multidrug resistant cells. Highly expressed in heart and skeletal muscle, and at lower levels in placenta, pancreas, brain, spleen, prostate, thymus, testis, small intestine, colon and leukocytes. Not found in liver and lung

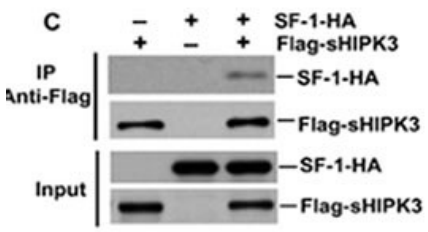
Background

HIPK3 negatively regulates apoptosis by promoting FADD phosphorylation. This kinase enhances androgen receptor-mediated transcription, and may act as a transcriptional corepressor for NK homeodomain transcription factors.

References

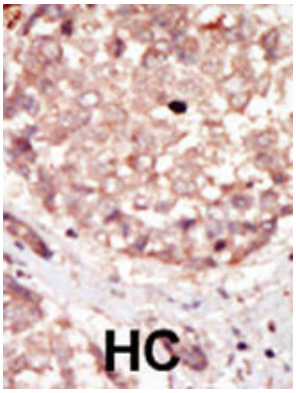
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Images



Detection of interaction between HIPK3 and SF-1 by coimmunoprecipitation. After expression of SF-1-HA and Flag-sHIPK3 (aa 159 to 1191) in H1299 cells, the HIPK3 protein complex was immunoprecipitated with anti-Flag antibody or by direct loading to the gel (input). Western blotting was then performed to detect SF-1-HA and Flag-sHIPK3.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, 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. BC = breast carcinoma; HC = hepatocarcinoma.



Citations

- Tiefenbach J., et al. A live zebrafish-based screening system for human nuclear receptor ligand and cofactor discovery.PLoS One. 2010 Mar 22;5(3):e9797. doi: 10.1371/journal.pone.0009797.
- Cyclic AMP stimulates SF-1-dependent CYP11A1 expression through homeodomain-interacting protein kinase 3-mediated Jun N-terminal kinase and c-Jun phosphorylation.
- Death-associated protein 6 (Daxx) mediates cAMP-dependent stimulation of Cyp11a1 (P450scc) transcription.

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