

HIPK2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7539e**Specification**

HIPK2 Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	O9H2X6
Other Accession	O9QZR5
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	437-468

HIPK2 Antibody (Center) - Additional Information**Gene ID** 28996**Other Names**

Homeodomain-interacting protein kinase 2, hHIPk2, HIPK2

Target/Specificity

This HIPK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 437-468 amino acids from the center region of human HIPK2.

Dilution

WB~~1:1000

IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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

HIPK2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

HIPK2 Antibody (Center) - Protein Information**Name** HIPK2**Function** Serine/threonine-protein kinase involved in transcription regulation, p53/TP53-mediated

cellular apoptosis and regulation of the cell cycle. Acts as a corepressor of several transcription factors, including SMAD1 and POU4F1/Brn3a and probably NK homeodomain transcription factors. Phosphorylates PDX1, ATF1, PML, p53/TP53, CREB1, CTBP1, CBX4, RUNX1, EP300, CTNNB1, HMGA1, ZBTB4 and DAZAP2. Inhibits cell growth and promotes apoptosis through the activation of p53/TP53 both at the transcription level and at the protein level (by phosphorylation and indirect acetylation). The phosphorylation of p53/TP53 may be mediated by a p53/TP53-HIPK2-AXIN1 complex. Involved in the response to hypoxia by acting as a transcriptional co-suppressor of HIF1A. Mediates transcriptional activation of TP73. In response to TGFB, cooperates with DAXX to activate JNK. Negative regulator through phosphorylation and subsequent proteasomal degradation of CTNNB1 and the antiapoptotic factor CTBP1. In the Wnt/beta-catenin signaling pathway acts as an intermediate kinase between MAP3K7/TAK1 and NLK to promote the proteasomal degradation of MYB. Phosphorylates CBX4 upon DNA damage and promotes its E3 SUMO-protein ligase activity. Activates CREB1 and ATF1 transcription factors by phosphorylation in response to genotoxic stress. In response to DNA damage, stabilizes PML by phosphorylation. PML, HIPK2 and FBXO3 may act synergically to activate p53/TP53-dependent transactivation. Promotes angiogenesis, and is involved in erythroid differentiation, especially during fetal liver erythropoiesis. Phosphorylation of RUNX1 and EP300 stimulates EP300 transcription regulation activity. Triggers ZBTB4 protein degradation in response to DNA damage. In response to DNA damage, phosphorylates DAZAP2 which localizes DAZAP2 to the nucleus, reduces interaction of DAZAP2 with HIPK2 and prevents DAZAP2-dependent ubiquitination of HIPK2 by E3 ubiquitin-protein ligase SIAH1 and subsequent proteasomal degradation (PubMed:[33591310](#)). Modulates HMGA1 DNA-binding affinity. In response to high glucose, triggers phosphorylation-mediated subnuclear localization shifting of PDX1. Involved in the regulation of eye size, lens formation and retinal lamination during late embryogenesis.

Cellular Location

Nucleus, PML body. Cytoplasm Cytoplasm, Stress granule Note=Concentrated in PML/POD/ND10 nuclear bodies. Small amounts are cytoplasmic

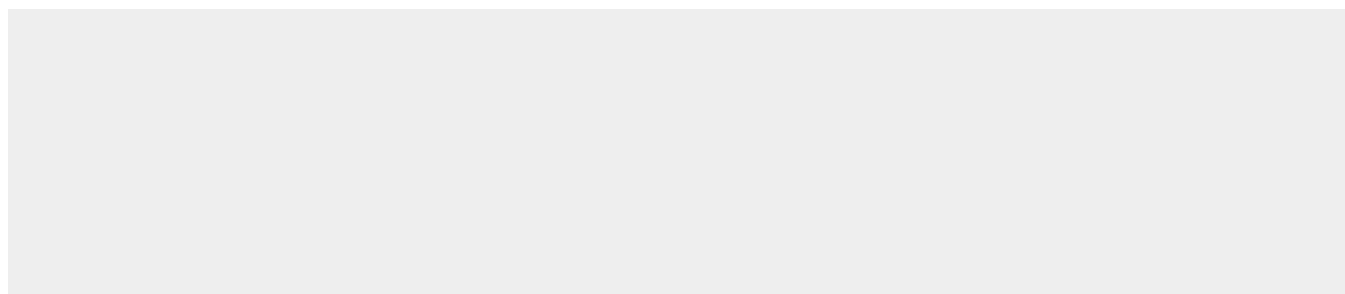
Tissue Location

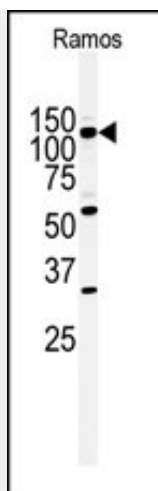
Highly expressed in heart, muscle and kidney. Weakly expressed in a ubiquitous way. Down-regulated in several thyroid and breast tumors.

HIPK2 Antibody (Center) - Protocols

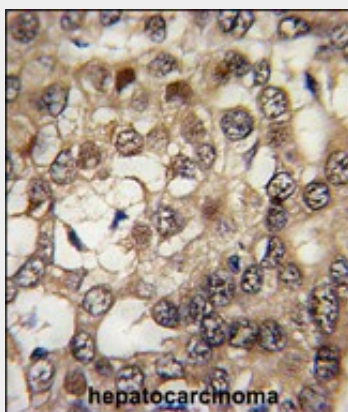
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

HIPK2 Antibody (Center) - Images



Western blot analysis of anti-HIPK2 Antibody (Center) (Cat. #AP7539e) in Ramos cell line lysates (35ug/lane). HIPK2(arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with HIPK2 Antibody (Center) (Cat.#AP7539e), 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.

HIPK2 Antibody (Center) - Background

HIPK2, a member of the KIPK subfamily of Ser/Thr protein kinases, phosphorylates homeodomain transcription factors and may play a role as a corepressor for homeodomain transcription factors. This nuclear protein has been shown to interact with TRADD. It is highly expressed in neuronal tissues, heart and kidney, and weakly expressed in a ubiquitous way. HIPK2 is a target for sumoylation, and when conjugated it is directed to nuclear speckles.

HIPK2 Antibody (Center) - References

Li, X., et al., Biochem. Biophys. Res. Commun. 277(2):513-517 (2000).
Wang, Y., et al., Biochim. Biophys. Acta 1518 (1-2), 168-172 (2001).