Rabbit anti-Human, Mouse HIPK2 Polyclonal Antibody | anti-HIPK2 antibody

HIPK2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327371	**Rabbit**	**Human, Mouse**	**ELISA, Immunohistochemistry, Western Blot**

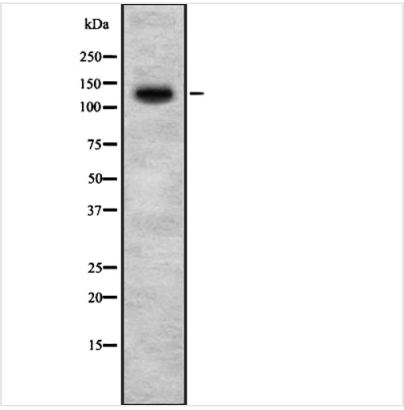
PRODUCT SYNONYMS

HIPK2; Polyclonal Antibody; HIPK2 Antibody; hHIPk 2; hHIPk2; HIPK 2; Hipk2; HIPK2_HUMAN; Homeodomain interacting protein kinase 2; Homeodomain-interacting protein kinase 2; Nbak1; Nuclear body-associated kinase 1; PRO0593; Sialophorin tail-associated nuclear serine/threonine-protein kinase; Stank; anti-HIPK2 antibody

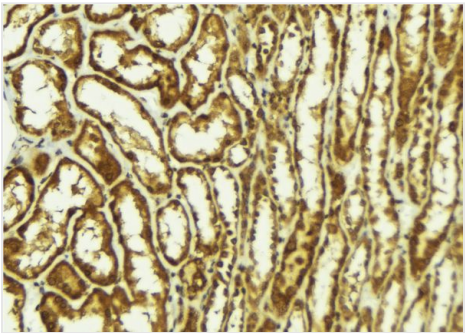
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	HIPK2 antibody detects endogenous levels of total HIPK2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1171
Applicable Applications for anti-HIPK2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human HIPK2
Subcellular Location	Nucleus > PML Body. Cytoplasm. Concentrated in PML/POD/ND10 nuclear bodies. Small amounts are cytoplasmic.
Tissue Specificity	Highly expressed in heart, muscle and kidney. Weakly expressed in a ubiquitous way. Down-regulated in several thyroid and breast tumors.
Predicted Cross Reactivity	**Pig, Zebrafish, Bovine, Horse, Rabbit, Chicken**
Similarity	Pig (92%), Zebrafish (83%), Bovine (100%), Horse (100%), Rabbit (92%), Chicken (92%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of HIPK2 using 293 whole lysates.



IHC (Immunohistochemistry)
AAA327371 at 1/100 staining Mouse kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-HIPK2 antibody	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 and ZBTB4. 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. 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. Subunit Structure: Interacts with CREB1, SIAH1, WSB1, CBX4, TRADD, p53/TP53, TP73, TP63, CREBBP, DAXX, P53DINP1, SKI, SMAD1, SMAD2 and SMAD3, but not SMAD4. Interacts with ATF1, PML, RUNX1, EP300, NKX1-2, NKX2-5, SPN/CD43, UBE2I, HMGA1, CTBP1, AXIN1, NLK, MYB, POU4F1, POU4F2, POU4F3, UBE2I, UBL1 and ZBTB4. Probably part of a complex consisting of p53/TP53, HIPK2 and AXIN1. Interacts with SP100; positively regulates TP53-dependent transcription. Post-translational Modifications: Autophosphorylation at Tyr-361 in the activation loop activates the kinase and promotes nuclear localization. Sumoylated. When conjugated it is directed to nuclear speckles. Desumoylated by SENP1 (By similarity). Sumoylation on Lys-32 is promoted by the E3 SUMO-protein ligase CBX4. Ubiquitinated by FBXO3, WSB1 and SIAH1, leading to rapid proteasome-dependent degradation. The degradation mediated by FBXO3, but not ubiquitination, is prevented in the presence of PML. The degradation mediated by WSB1 and SIAH1 is reversibly reduced upon DNA damage. Cleaved at Asp-923 and Asp-984 by CASP6 in a p53/TP53-dependent manner. The cleaved form lacks the autoinhibitory C-terminal domain (AID), resulting in a hyperactive kinase, which potentiates p53/TP53 Ser-46 phosphorylation and subsequent activation of the cell death machinery. Similarity: Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. HIPK subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	164420691
NCBI GeneID	28996
NCBI Accession #	NP_001106710.1

NCBI GenBank Nucleotide #	NM_001113239.2
UniProt Accession #	Q9H2X6; Q75MR7; Q8WWI4; Q9H2Y1
Molecular Weight	Observed: 131 kDa Predicted: 131 kDa
NCBI Official Full Name	homeodomain-interacting protein kinase 2 isoform 2
NCBI Official Synonym Full Names	homeodomain interacting protein kinase 2
NCBI Official Symbol	HIPK2
NCBI Official Synonym Symbols	PRO0593
NCBI Protein Information	homeodomain-interacting protein kinase 2
UniProt Protein Name	Homeodomain-interacting protein kinase 2
UniProt Gene Name	**HIPK2**
UniProt Synonym Gene Names	hHIPk2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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