

HIPK2 (H-55): sc-25431

BACKGROUND

The Homeodomain-Interacting Protein Kinase (HIPK) family, which includes HIPK1, HIPK2, HIPK3, contains a conserved protein kinase domain as well as a separate domain that interacts with homeoproteins. HIPK2, the most highly characterized family member, is thought to act as a co-repressor of homeodomain transcription factors as HIPK2 has been shown to enhance the DNA binding of the NK-3 homeoprotein *in vitro*. It is regulated by a posttranslational modification of a ubiquitin-like protein, SUMO-1, via covalent bonding to a lysine residue on HIPK2. This is similar to the binding of SUMO-1 to PML and Sp100. The conjugation of SUMO-1 is thought to direct each of these proteins to nuclear bodies (NB's), which appear to play a role in autoimmunity and viral protection. HIPK2 is the first protein kinase to be directed to nuclear bodies in response to ubiquitin-like modification.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HIPK2 (human) mapping to 7q34; Hipk2 (mouse) mapping to 6 B1.

SOURCE

HIPK2 (H-55) is a rabbit polyclonal antibody raised against amino acids 36-90 mapping near the N-terminus of HIPK2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HIPK2 (H-55) is available conjugated to agarose (sc-25431 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

HIPK2 (H-55) is recommended for detection of HIPK2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

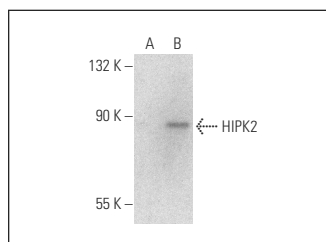
HIPK2 (H-55) is also recommended for detection of HIPK2 in additional species, including equine and canine.

Suitable for use as control antibody for HIPK2 siRNA (h): sc-39050, HIPK2 siRNA (m): sc-39051, HIPK2 shRNA Plasmid (h): sc-39050-SH, HIPK2 shRNA Plasmid (m): sc-39051-SH, HIPK2 shRNA (h) Lentiviral Particles: sc-39050-V and HIPK2 shRNA (m) Lentiviral Particles: sc-39051-V.

Molecular Weight of HIPK2: 131 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284 or human HIPK2 transfected CHO whole cell lysate.

DATA



HIPK2 (H-55): sc-25431. Western blot analysis of HIPK2 expression in non-transfected CHO (A) and human HIPK2 transfected CHO (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Ohtsu, N., Nobuhisa, I., Mochita, M. and Taga, T. 2007. Inhibitory effects of homeodomain-interacting protein kinase 2 on the aorta-gonad-mesonephros hematopoiesis. *Exp. Cell Res.* 313: 88-97.
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- Lanni, C., Nardinocchi, L., Puca, R., Stanga, S., Uberti, D., Memo, M., Govoni, S., D'Orazi, G. and Racchi, M. 2010. Homeodomain interacting protein kinase 2: a target for Alzheimer's β amyloid leading to misfolded p53 and inappropriate cell survival. *PLoS ONE* 5: e10171.

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