SANTA CRUZ BIOTECHNOLOGY, INC.

HIPK3 (K-13): sc-46359

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The Power to Question

BACKGROUND

The homeodomain-interacting protein kinase (HIPK) family includes three members, HIPK1, HIPK2, and HIPK3. Each family member contains a conserved protein kinase domain as well as a separate domain, which interacts with homeoproteins. HIPK2 appears to act as a corepressor of homeodomain transcription factors, such as NK-3. Also, HIPK2 is regulated by ubiquitin-like modification via the covalent binding of SUMO-1. Subsequently, it is directed to nuclear bodies *in vitro*.

REFERENCES

1. Kim, Y.H., Choi, C.Y., Lee, S.J., Conti, M.A. and Kim, Y. 1998. Homeodomain-interacting protein kinases, a novel family of co-repressors for homeodomain transcription factors. J. Biol. Chem. 273: 25875-25879.
2. Nupponen, N.N. and Visakorpi, T. 1999. Assignment of the protein kinase homolog of YAK1 (HIPK3) to human chromosome band 11p13 by *in situ* hybridization. Cytogenet. Cell. Genet. 87:102-103.
3. Rochat-Steiner, V., Becker, K., Micheau, O., Schneider, P., Burns, K. and Tschopp, J. 2000. FIST/HIPK3: a Fas/FADD-interacting serine/threonine kinase that induces FADD phosphorylation and inhibits fas-mediated Jun NH_2-terminal kinase activation. J. Exp. Med. 192: 1165-1174.
4. Curtin, J.F. and Cotter, T.G. 2004. JNK regulates HIPK3 expression and promotes resistance to Fas-mediated apoptosis in DU 145 prostate carcinoma cells. J. Biol. Chem. 279: 17090-17100.
5. Venables, J.P., Bourgeois, C.F., Dalgliesh, C., Kister, L., Stevenin, J. and Elliott, D.J. 2005. Up-regulation of the ubiquitous alternative splicing factor Tra2β causes inclusion of a germ cell-specific exon. Hum. Mol. Genet. 14: 2289-2303.
6. Gresko, E., Moller, A., Roscic, A. and Schmitz, M.L. 2005. Covalent modification of human homeodomain interacting protein kinase 2 by SUMO-1 at lysine 25 affects its stability. Biochem. Biophys. Res. Commun. 329: 1293-1299.

CHROMOSOMAL LOCATION

Genetic locus: HIPK3 (human) mapping to 11p13; Hipk3 (mouse) mapping to 2 E2.

SOURCE

HIPK3 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HIPK3 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.

Blocking peptide available for competition studies, sc-46359 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HIPK3 (K-13) is recommended for detection of HIPK3 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).

HIPK3 (K-13) is also recommended for detection of HIPK3 in additional species, including equine, canine and porcine.

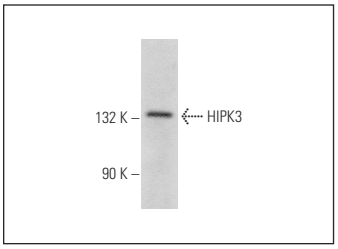
Suitable for use as control antibody for HIPK3 siRNA (h): sc-45654, HIPK3 siRNA (m): sc-45655, HIPK3 shRNA Plasmid (h): sc-45654-SH, HIPK3 shRNA Plasmid (m): sc-45655-SH, HIPK3 shRNA (h) Lentiviral Particles: sc-45654-V and HIPK3 shRNA (m) Lentiviral Particles: sc-45655-V.

Positive Controls: rat testis extract: sc-2400.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HIPK3 (K-13): sc-46359. Western blot analysis of HIPK3 expression in rat testis tissue extract.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.