

HIPK4 (G-15): sc-168080

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. The homeodomain-interacting protein kinases (HIPK1, HIPK2, HIPK3 and HIPK4) comprise a subfamily of kinase proteins that have a conserved protein kinase domain, as well as a separate domain that interacts with homeoproteins. HIPK4 (homeodomain-interacting protein kinase 4) is a 616 amino acid protein that localizes to the cytoplasm and exists as 2 isoforms that are produced by alternative splicing events. Like other members of the HIPK family, HIPK4 functions as a protein kinase that catalyzes the ATP-dependent phosphorylation of target proteins and is thought to act as a corepressor of target transcription factors.

REFERENCES

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- Rinaldo, C., et al. 2008. HIPKs: Jack of all trades in basic nuclear activities. *Biochim. Biophys. Acta* 1783: 2124-2129.
- Boucher, M.J., et al. 2008. The homeodomain-interacting protein kinase 2 regulates insulin promoter factor-1/pancreatic duodenal homeobox-1 transcriptional activity. *Endocrinology* 150: 87-97.

CHROMOSOMAL LOCATION

Genetic locus: HIPK4 (human) mapping to 19q13.2; Hipk4 (mouse) mapping to 7 A3.

SOURCE

HIPK4 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HIPK4 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-168080 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HIPK4 (G-15) is recommended for detection of HIPK4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other HIPK family members.

HIPK4 (G-15) is also recommended for detection of HIPK4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HIPK4 siRNA (h): sc-97189, Hipk4 siRNA (m): sc-145970, HIPK4 shRNA Plasmid (h): sc-97189-SH, Hipk4 shRNA Plasmid (m): sc-145970-SH, HIPK4 shRNA (h) Lentiviral Particles: sc-97189-V and Hipk4 shRNA (m) Lentiviral Particles: sc-145970-V.

Molecular Weight of HIPK4: 80 kDa.

Positive Controls: mouse heart.

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 Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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

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.

PROTOCOLS

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