SANTA CRUZ BIOTECHNOLOGY, INC.

PHIP (E-17): sc-66621

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PHIP (Pleckstrin homology domain interacting protein), also known as ndrp or WDR11, is a 1,821 amino acid protein that contains 8 N-terminal WD40 repeats and 2 bromodomains. It is expressed in skeletal muscle (localizing to the cytosol and nucleus) and primary β cells (localizing to the nucleus) and acts as a transcriptional activator. PHIP is known to interact with various members of the Insulin receptor substrate (IRS) family. The IRS family of proteins mediate Insulin receptor signaling and play an important role in Insulin-producing β cell proliferation and survival. PHIP specifically associates with the PH domain of IRS-1 and may function to link IRS-1 to Insulin receptors, indicating a vital role of PHIP in the regulation of Insulin signaling. Further supporting this role of PHIP, mutations in the gene encoding PHIP disrupt IRS-mediated signaling pathways resulting in the inhibition of GLUT4 translocation in muscle cells. PHIP is also known to bind IRS-2 and may play a similar role, linking IRS-2 to Insulin receptors.

REFERENCES

1. Farhang-Fallah, J., et al. 2000. Cloning and characterization of PHIP, a novel Insulin receptor substrate-1 Pleckstrin homology domain interacting protein. J. Biol. Chem. 275: 40492-40497.
2. Farhang-Fallah, J., et al. 2002. The Pleckstrin homology (PH) domain-interacting protein couples the Insulin receptor substrate 1 PH domain to Insulin signaling pathways leading to mitogenesis and Glut4 translocation. Mol. Cell. Biol. 22: 7325-7336.
3. Sadagurski, M., et al. 2005. Insulin receptor substrate 2 plays diverse cell-specific roles in the regulation of glucose transport. J. Biol. Chem. 280: 14536-14544.
4. Podcheko, A., et al. 2007. Identification of a WD40 repeat-containing isoform of PHIP as a novel regulator of β-cell growth and survival. Mol. Cell. Biol. 27: 6484-6496.

CHROMOSOMAL LOCATION

Genetic locus: PHIP (human) mapping to 6q14.1; Phip (mouse) mapping to 9 E2.

SOURCE

PHIP (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PHIP 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-66621 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

PHIP (E-17) is recommended for detection of PHIP 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PHIP (E-17) is also recommended for detection of PHIP in additional species, including equine, canine, bovine and porcine.

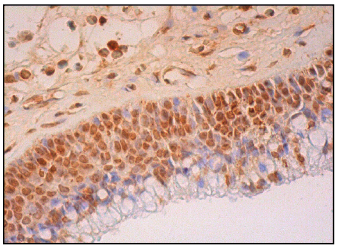
Suitable for use as control antibody for PHIP siRNA (h): sc-62800, PHIP siRNA (m): sc-62801, PHIP shRNA Plasmid (h): sc-62800-SH, PHIP shRNA Plasmid (m): sc-62801-SH, PHIP shRNA (h) Lentiviral Particles: sc-62800-V and PHIP shRNA (m) Lentiviral Particles: sc-62801-V.

Molecular Weight of PHIP: 206 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PHIP (E-17): sc-66621. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear staining of respiratory epithelial cells.

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.