PICT-1 (C-20): sc-46615

SANTA CRUZ® BIOTECHNOLOGY

The Power to Question

BACKGROUND

The tumor suppressor PTEN plays an essential role in regulating signaling pathways involved in cell growth and apoptosis and is inactivated in a wide variety of tumors. Protein interacting with PTEN carboxyl terminus 1 (PICT-1), also designated p60 or Glioma tumor suppressor candidate region gene 2 protein, binds to the C-terminus of PTEN and regulates its turnover. Five Ser/Thr residues within the C-terminal segment of PTEN, including Ser 380, are phosphorylated upon binding of PTEN to PICT-1 and may contribute to the stabilization of PTEN. PICT-1 is localized to the nucleus and/or nucleolus and is highly expressed in pancreas and heart, but can also be detected in liver, skeletal muscle, placenta and kidney. PICT-1 also interacts with herpes simplex virus 1 regulatory proteins ICP22 and ICP0. The tumor suppressor GLTSCR2 gene, which encodes PICT-1, is located in a 150 kb minimal common deletion region for human gliomas, especially oligodendrogliomas, and maps to human chromosome 19q13.3.

REFERENCES

1. Bruni, R., et al. 1999. A novel cellular protein, p60, interacting with both herpes simplex virus 1 regulatory proteins ICP22 and ICP0 is modified in a cell-type-specific manner and is recruited to the nucleus after infection. J. Virol. 73: 3810-3817.

2. Smith, J.S., et al. 2000. A transcript map of the chromosome 19q-arm glioma tumor suppressor region. Genomics 64: 44-50.

3. Okahara, F., et al. 2004. Regulation of PTEN phosphorylation and stability by a tumor suppressor candidate protein. J. Biol. Chem. 279: 45300-45303.

4. Yang, P., et al. 2005. Polymorphisms in GLTSCR1 and ERCC2 are associated with the development of oligodendrogliomas. Cancer 103: 2363-2372

CHROMOSOMAL LOCATION

Genetic locus: GLTSCR2 (human) mapping to 19q13.3; Gltscr2 (mouse) mapping to 7 A2.

SOURCE

PICT-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PICT-1 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-46615 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.

PROTOCOLS

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

APPLICATIONS

PICT-1 (C-20) is recommended for detection of PICT-1 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).

Suitable for use as control antibody for PICT-1 siRNA (h): sc-45698, PICT-1 siRNA (m): sc-45699, PICT-1 shRNA Plasmid (h): sc-45698-SH, PICT-1 shRNA Plasmid (m): sc-45699-SH, PICT-1 shRNA (h) Lentiviral Particles: sc-45698-V and PICT-1 shRNA (m) Lentiviral Particles: sc-45699-V.

Molecular Weight of PICT-1: 54 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.

SELECT PRODUCT CITATIONS

1. Kalt, I., et al. 2010. GLTSCR2/PICT-1, a putative tumor suppressor gene product, induces the nucleolar targeting of the Kaposi's sarcoma-associated herpesvirus KS-Bcl-2 protein. J. Virol. 84: 2935-2945.

RESEARCH USE

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

MONOS
Satisfaction Guaranteed

Try **PICT-1 (5A8): sc-517088**, our highly recommended monoclonal alternative to PICT-1 (C-20).