SANTA CRUZ BIOTECHNOLOGY, INC.

PITSLRE (C-17): sc-928

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The PITSLRE β1 protein, a distantly related member of the Cdk family of protein kinases, induces apoptosis after low levels of ectopic expression. Apoptosis, or programmed cell death, is similarly induced by ectopic expression of an amino terminal deletion mutant retaining the catalytic and carboxy terminal domains of PITSLRE β1, but not by other mutants lacking Histone H1 kinase activity or by other Cdk family members. The terminology for the ten isoforms of the PITSLRE subfamily of proteins is based on the conserved PSTAIRE box region of Cdc2 p34. Depending on which of the PITSLRE genes produce the protein, the cDNA and protein are designated α, β or γ (i.e., PITSLRE A gene, α; PITSLRE B gene, β and PITSLRE C gene, γ). Some of the isoforms such as PITSLRE α1 (T cells) and PITSLRE β1 (B cells and brain), are expressed in specific cell types, while others are expressed ubiquitously.

CHROMOSOMAL LOCATION

Genetic locus: CDK11B/CDK11A (human) mapping to 1p36.33; Cdk11b (mouse) mapping to 4 E2.

SOURCE

PITSLRE (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of PITSLRE A 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-928 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PITSLRE (C-17) is recommended for detection of PITSLRE A and PITSLRE B of human origin and PITSLRE of mouse and rat 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), 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).

PITSLRE (C-17) is also recommended for detection of PITSLRE A, PITSLRE B and PITSLRE in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PITSLRE siRNA (m): sc-37591, PITSLRE shRNA Plasmid (m): sc-37591-SH and PITSLRE shRNA (m) Lentiviral Particles: sc-37591-V.

Molecular Weight of PITSLRE: 110/58 kDa.

Positive Controls: mouse thymus extract: sc-2406 or WI-38 whole cell lysate: sc-364260.

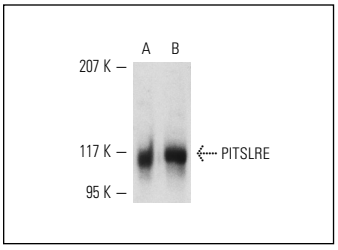
RESEARCH USE

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

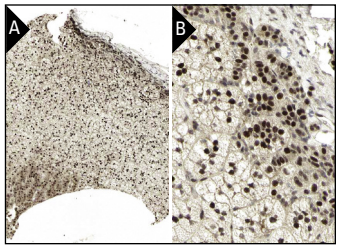
STORAGE

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

DATA



PITSLRE (C-17): sc-928. Western blot analysis of PITSLRE expression in WI-38 whole cell lysate (**A**) and mouse thymus tissue extract (**B**).



PITSLRE (C-17): sc-928. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing nuclear and cytoplasmic staining of cortical cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Cornelis, S., et al. 2000. Identification and characterization of a novel cell cycle-regulated internal ribosome entry site. Mol. Cell 5: 597-605.
2. Berke, J.D., et al. 2001. Dopamine and glutamate induce distinct striatal splice forms of Ania-6, an RNA polymerase II-associated cyclin. Neuron 32: 277-287.
3. De Graaf, K., et al. 2004. Characterization of cyclin L2, a novel cyclin with an arginine/serine-rich domain: phosphorylation by Dyrk1A and colocalization with splicing factors. J. Biol. Chem. 279: 4612-4624.
4. Sachs, N.A., et al. 2004. Cyclin-dependent kinase 11p110 and casein kinase 2 (CK2) inhibit the interaction between tyrosine hydroxylase and 14-3-3. J. Neurochem. 88: 51-62.
5. Larochelle, S., et al. 2006. Dichotomous but stringent substrate selection by the dual-function Cdk7 complex revealed by chemical genetics. Nat. Struct. Mol. Biol. 13: 55-62.

PROTOCOLS

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