

PITSLRE (B-9): sc-377296

BACKGROUND

The PITSLRE β 1 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 β 1, 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 α 1 (T cells) and PITSLRE β 1 (B cells and brain), are expressed in specific cell types, while others are expressed ubiquitously.

REFERENCES

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2. Cohen, J.J. 1991. Programmed cell death in the immune system. *Adv. Immunol.* 50: 55-85.
3. Ellis, R.E., et al. 1991. Mechanisms and functions of cell death. *Annu. Rev. Cell Biol.* 7: 663-698.
4. Meyerson, M., et al. 1992. A family of human Cdc2-related protein kinases. *EMBO J.* 11: 2909-2917.
5. Raff, M.C., et al. 1993. Programmed cell death and the control of cell survival: lessons from the nervous system. *Science* 262: 695-700.
6. Reed, J.C. 1994. Bcl-2 and the regulation of programmed cell death. *J. Cell Biol.* 124: 1-6.
7. Xiang, J., et al. 1994. Molecular cloning and expression of alternatively spliced PITSLRE protein kinase isoforms. *J. Biol. Chem.* 269: 15786-15794.
8. Lahti, J.M., et al. 1995. PITSLRE protein kinase activity is associated with apoptosis. *Mol. Cell. Biol.* 15: 1-11.

CHROMOSOMAL LOCATION

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

SOURCE

PITSLRE (B-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 749-775 at the C-terminus of PITSLRE A of human origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377296 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PITSLRE (B-9) 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 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PITSLRE (B-9) is also recommended for detection of PITSLRE A and PITSLRE B 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.

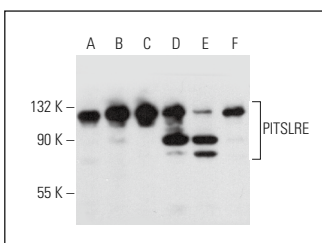
Molecular Weight of PITSLRE isoforms: 110/58 kDa.

Positive Controls: NRK whole cell lysate: sc-364197, SP2/0 whole cell lysate: sc-364795 or HeLa whole cell lysate: sc-2200.

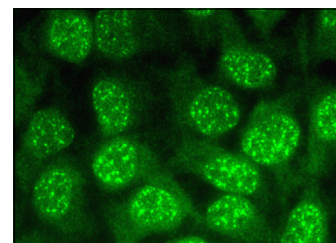
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PITSLRE (B-9): sc-377296. Western blot analysis of PITSLRE expression in HeLa (A), HUV-EC-C (B), SP2/0 (C), BW5147 (D), RIN-m5F (E) and NRK (F) whole cell lysates.



PITSLRE (B-9): sc-377296. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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 for detailed protocols and support products.