# PRELI (P-20): sc-68751



The Power to Question

## **BACKGROUND**

PRELI (protein of relevant evolutionary and lymphoid interest), also known as PRELID1, is a 219 amino acid mitochondrial protein that is encoded within a conserved  $l\kappa B\text{-}\alpha$  and Rab 24 gene cluster. PRELI is highly expressed in fetal liver, which is a major site for B cell lymphopoiesis. During maturation, expression levels of PRELI are drastically reduced in liver and predominant expression is found in brain, lymph nodes, peripheral blood leukocytes and spleen. Changes in expression pattern suggest that PRELI is vital for the development of immunocompetent organs. PRELI contains a late embryogenesis abundant (LEA) motif which is commonly found in plant proteins, suggesting a phylogenetic link between plants and animals. PRELI also contains a 170 amino acid PRELI/MSF1 domain at its N-terminus which may have a function associated with the cellular membrane.

# **REFERENCES**

- Niu, S., Antin, P.B. and Morkin, E. 1996. Cloning and sequencing of a developmentally regulated avian mRNA containing the LEA motif found in plant seed proteins. Gene 175: 187-191.
- Guzman-Rojas, L., Sims, J.C., Rangel, R., Guret, C., Sun, Y., Alcocer, J.M. and Martinez-Valdez, H. 2000. PRELI, the human homologue of the avian px19, is expressed by germinal center B lymphocytes. Int. Immunol. 12: 607-612.
- Jones, J.B., Song, J.J., Hempen, P.M., Parmigiani, G., Hruban, R.H. and Kern, S.E. 2001. Detection of mitochondrial DNA mutations in pancreatic cancer offers a "mass"-ive advantage over detection of nuclear DNA mutations. Cancer Res. 61: 1299-1304.
- Fox, E.J., Stubbs, S.A., Kyaw Tun, J., Leek, J.P., Markham, A.F. and Wright, S.C. 2004. PRELI (protein of relevant evolutionary and lymphoid interest) is located within an evolutionarily conserved gene cluster on chromosome 5q34-q35 and encodes a novel mitochondrial protein. Biochem. J. 378: 817-825.
- Dee, C.T. and Moffat, K.G. 2005. A novel family of mitochondrial proteins is represented by the *Drosophila* genes SLMO, PRELI-like and real-time. Dev. Genes Evol. 215: 248-254.
- Knights, A.J., Weinzierl, A.O., Flad, T., Guinn, B.A., Mueller, L., Mufti, G.J., Stevanovic, S. and Pawelec, G. 2006. A novel MHC-associated proteinase 3 peptide isolated from primary chronic myeloid leukaemia cells further supports the significance of this antigen for the immunotherapy of myeloid leukaemias. Leukemia 20: 1067-1072.
- 7. Sesaki, H., Dunn, C.D., Iijima, M., Shepard, K.A., Yaffe, M.P., Machamer, C.E. and Jensen, R.E. 2006. Ups1p, a conserved intermembrane space protein, regulates mitochondrial shape and alternative topogenesis of Mgm1p. J. Cell Biol. 173: 651-658.

# CHROMOSOMAL LOCATION

Genetic locus: PRELID1 (human) mapping to 5q35.3; Prelid1 (mouse) mapping to 13 B1.

## **RESEARCH USE**

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

#### **SOURCE**

PRELI (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PRELI of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68751 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

PRELI (P-20) is recommended for detection of PRELI 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).

PRELI (P-20) is also recommended for detection of PRELI in additional species, including canine, porcine and avian.

Suitable for use as control antibody for PRELI siRNA (h): sc-76242, PRELI siRNA (m): sc-76243, PRELI shRNA Plasmid (h): sc-76242-SH, PRELI shRNA Plasmid (m): sc-76243-SH, PRELI shRNA (h) Lentiviral Particles: sc-76242-V and PRELI shRNA (m) Lentiviral Particles: sc-76243-V.

Molecular Weight of PRELI: 25 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.

#### **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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com