

PRELI (QF-7): sc-100817

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 κ B- α 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

1. Niu, S., et al. 1996. Cloning and sequencing of a developmentally regulated avian mRNA containing the LEA motif found in plant seed proteins. *Gene* 175: 187-191.
2. Guzman-Rojas, L., et al. 2000. PRELI, the human homologue of the avian px19, is expressed by germinal center B lymphocytes. *Int. Immunol.* 12: 607-612.
3. Jones, J.B., et al. 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.
4. Fox, E.J., et al. 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.
5. 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.
6. Knights, A.J., et al. 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., et al. 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.

SOURCE

PRELI (QF-7) is a mouse monoclonal antibody raised against recombinant PRELI of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PRELI (QF-7) 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), 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), 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).

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.

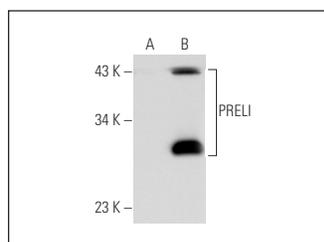
Molecular Weight of PRELI: 25 kDa.

Positive Controls: PRELI (h): 293 Lysate: sc-111112.

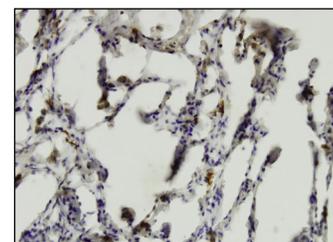
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PRELI (QF-7): sc-100817. Western blot analysis of PRELI expression in non-transfected: sc-110760 (A) and human PRELI transfected: sc-111112 (B) 293 whole cell lysates.



PRELI (QF-7): sc-100817. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tissue showing cytoplasmic localization.

STORAGE

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