

PNMAL1 (N-14): sc-241629

BACKGROUND

PNMAL1 (PNMA-like 1) is a 439 amino acid protein that exists as 3 alternatively spliced isoforms and belongs to the PNMA family. Conserved in chimpanzee, canine, bovine, mouse and rat, PNMAL1 is encoded by a gene that maps to human chromosome 19q13.32. Consisting of approximately 63 million bases and making up over 2% of human genomic DNA, chromosome 19 contains the greatest gene density of the human chromosomes. Chromosome 19 is the genetic home for a number of immunoglobulin superfamily members, including killer cell and leukocyte Ig-like receptors, ICAMs, the CEACAM and PSG families, and Fc α receptors. Key genes for eye color and hair color also map to chromosome 19. Peutz-Jeghers syndrome, spinocerebellar ataxia type 6, the stroke disorder CADASIL, hypercholesterolemia and Insulin-dependent diabetes are also linked to chromosome 19.

REFERENCES

1. LaPoint, S.F., et al. 2000. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Adv. Anat. Pathol.* 7: 307-321.
2. Buchet-Poyau, K., et al. 2002. Search for the second Peutz-Jeghers syndrome locus: exclusion of the STK13, PRKCG, KLK10, and PSCD2 genes on chromosome 19 and the STK11IP gene on chromosome 2. *Cytogenet. Genome Res.* 97: 171-178.
3. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. *Nature* 428: 529-535.
4. Parham, P. 2005. Immunogenetics of killer cell immunoglobulin-like receptors. *Mol. Immunol.* 42: 459-462.
5. Tews, B., et al. 2006. Identification of novel oligodendroglioma-associated candidate tumor suppressor genes in 1p36 and 19q13 using microarray-based expression profiling. *Int. J. Cancer* 119: 792-800.
6. Vikelis, M., et al. 2007. A novel CADASIL-causing mutation in a stroke patient. *Swiss Med. Wkly.* 137: 323-325.
7. Schraders, M., et al. 2008. Integrated genomic and expression profiling in mantle cell lymphoma: identification of gene-dosage regulated candidate genes. *Br. J. Haematol.* 143: 210-221.

CHROMOSOMAL LOCATION

Genetic locus: PNMAL1 (human) mapping to 19q13.32; Pnmal1 (mouse) mapping to 7 A2.

SOURCE

PNMAL1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PNMAL1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-241629 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PNMAL1 (N-14) is recommended for detection of PNMAL1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PNMAL1 siRNA (h): sc-97847, PNMAL1 siRNA (m): sc-152356, PNMAL1 shRNA Plasmid (h): sc-97847-SH, PNMAL1 shRNA Plasmid (m): sc-152356-SH, PNMAL1 shRNA (h) Lentiviral Particles: sc-97847-V and PNMAL1 shRNA (m) Lentiviral Particles: sc-152356-V.

Molecular Weight of PNMAL1 isoform 1: 48 kDa.

Molecular Weight of PNMAL1 isoform 2: 42 kDa.

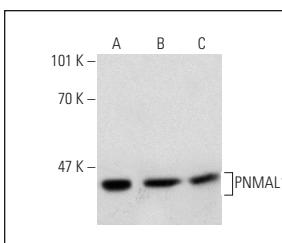
Molecular Weight of PNMAL1 isoform 3: 23 kDa.

Positive Controls: mouse brain extract: sc-2253, A549 cell lysate: sc-2413 or IMR-32 cell lysate: sc-2409.

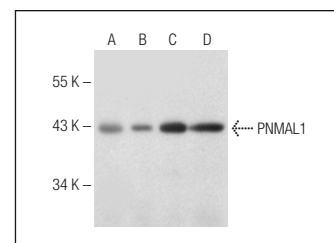
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



PNMAL1 (N-14): sc-241629. Western blot analysis of PNMAL1 expression in A549 (A) and IMR-32 (B) whole cell lysates and mouse brain tissue extract (C).



PNMAL1 (N-14): sc-241629. Western blot analysis of PNMAL1 expression in U-87 MG (A), Hep G2 (B), A549 (C) and K-562 (D) whole cell lysates.

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.