

# PML (N-19): sc-9862

## BACKGROUND

The PML protein is a zinc finger transcription factor expressed as three major transcription products due to alternative splicing. The gene encoding human PML maps to chromosome 15q24.1. The t(15;17) (q22;q11.2-q12) chromosomal translocation of the retinoic acid receptor  $\alpha$  (RAR $\alpha$ ) gene occurs in virtually all cases of acute promyelocytic leukemia and results in the expression of a PML/RAR $\alpha$  chimeric protein. Myeloid precursor cells expressing the PML/RAR $\alpha$  chimera fail to differentiate and exhibit an increased growth rate consequent to diminished apoptosis. PML/RAR $\alpha$  transforms myeloid precursors by recruiting the nuclear co-repressor (N-CoR)-histone deacetylase complex that is essential to retinoic acid-dependent myeloid differentiation. PML/RAR $\alpha$  also recruits DNA methyltransferases in order to induce gene hypermethylation and silencing, which ultimately facilitates leukemogenesis.

## CHROMOSOMAL LOCATION

Genetic locus: PML (human) mapping to 15q24.1; Pml (mouse) mapping to 9 B.

## SOURCE

PML (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PML 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-9862 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-9862 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

PML (N-19) is recommended for detection of all isoforms of PML of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 PML siRNA (h): sc-36284, PML siRNA (m): sc-36283, PML shRNA Plasmid (h): sc-36284-SH, PML shRNA Plasmid (m): sc-36283-SH, PML shRNA (h) Lentiviral Particles: sc-36284-V and PML shRNA (m) Lentiviral Particles: sc-36283-V.

PML (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PML isoforms: 78/97 kDa.

Positive Controls: mouse cerebellum extract: sc-2403, K-562 whole cell lysate: sc-2203 or COLO 320DM cell lysate: sc-2226.

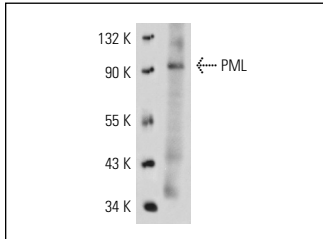
## RESEARCH USE

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

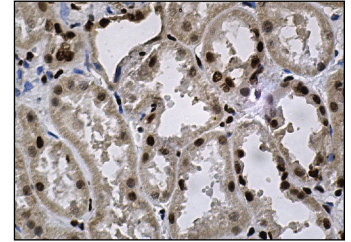
## STORAGE

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

## DATA



PML (N-19): sc-9862. Western blot analysis of PML expression in mouse cerebellum tissue extract.



PML (N-19): sc-9862. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing nuclear staining of cells in tubules.

## SELECT PRODUCT CITATIONS

- Foddiss, R., et al. 2002. SV40 infection induces telomerase activity in human mesothelial cells. *Oncogene* 21: 1434-1442.
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- Jiang, W.Q., et al. 2009. Induction of alternative lengthening of telomeres-associated PML bodies by p53/p21 requires HP1 proteins. *J. Cell Biol.* 185: 797-810.
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- Mohni, K.N., et al. 2013. Efficient herpes simplex virus 1 replication requires cellular ATR pathway proteins. *J. Virol.* 87: 531-542.



Try **PML (PG-M3): sc-966** or **PML (G-8): sc-377340**, our highly recommended monoclonal alternatives to PML (N-19). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PML (PG-M3): sc-966**.