

PML (m): 293T Lysate: sc-122659

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 15q22. The t(15;17) (q22;q11.2-q12) chromosomal translocation of the retinoic acid receptor α (RAR α) gene occurs in virtually all cases of acute promyelocytic leukemia and results in the expression of a PML/RAR α chimeric protein of 106 kDa. Myeloid precursor cells expressing the PML/RAR α chimera fail to differentiate and exhibit an increased growth rate consequent to diminished apoptosis. PML/RAR α 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 α also recruits DNA methyltransferases in order to induce gene hypermethylation and silencing, which ultimately facilitates leukemogenesis.

REFERENCES

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7. Grignani, F., et al. 1993. The acute promyelocytic leukemia-specific PML-RAR fusion protein inhibits differentiation and promotes survival of myeloid precursor cells. *Cell* 74: 423-431.
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CHROMOSOMAL LOCATION

Genetic locus: Pml (mouse) mapping to 9 B.

PRODUCT

PML (m): 293T Lysate represents a lysate of mouse PML transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

PML (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive PML antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.