PML (PG-M3): sc-966

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 α (RARα) gene occurs in virtually all cases of acute promyelocytic leukemia and results in the expression of a PML/RARα chimeric protein. Myeloid precursor cells expressing the PML/RARα chimera fail to differentiate and exhibit an increased growth rate consequent to diminished apoptosis. PML/RARα transforms myeloid precursors by recruiting the nuclear co-repressor (N-CoR)-histone deacetylase complex that is essential to retinoic acid-dependent myeloid differentiation. PML/RARα 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.

SOURCE
PML (PG-M3) is a mouse monoclonal antibody epitope corresponding to amino acids 37-51 mapping near the N-terminus of PML of human origin.

PRODUCT
Each vial contains 200 µg IgG1, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-966 X, 200 µg/0.1 ml.

PML (PG-M3) is available conjugated to aggarose (sc-966 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-966 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocerythin (sc-966 PE), fluorescein (sc-966 FITC), Alexa Fluor® 488 (sc-966 AF488), Alexa Fluor® 546 (sc-966 AF546), Alexa Fluor® 594 (sc-966 AF594) or Alexa Fluor® 647 (sc-966 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-966 AF680) or Alexa Fluor® 790 (sc-966 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, PML (PG-M3) is available conjugated to TRITC (sc-966 TRITC, 200 µg/ml), for IF, IHC(P) and FCM.

APPLICATIONS
PML (PG-M3) is recommended for detection of all isoforms of PML of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PML siRNA (h): sc-36284, PML shRNA Plasmid (h): sc-36284-SH and PML shRNA (h) Lentiviral Particles: sc-36284-V.

PML (PG-M3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PML isoforms: 78/97 kDa.

Positive Controls: K-562 nuclear extract: sc-2130.

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

DATA

SELECT PRODUCT CITATIONS


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

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