


# Anti-PML Protein antibody ab72137

[11 References](#) [画像数 3](#)

### 製品の概要

製品名	Anti-PML Protein antibody
製品の詳細	Rabbit polyclonal to PML Protein
由来種	Rabbit
アプリケーション	<b>適用あり:</b> WB, IP, IHC-P
種交差性	<b>交差種:</b> Human <b>交差が予測される動物種:</b> Chimpanzee, Gorilla, Orangutan 
免疫原	Synthetic peptide corresponding to a region between residues 375 and 425 of human PML Protein, NP_150241.2.
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### 製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

### アプリケーション

The Abpromise guarantee

**Abpromise保証は、次のテスト済みアプリケーションにおけるab72137の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
WB		1/2000 - 1/10000. Detects a band of approximately 98 kDa (predicted molecular weight: 98 kDa).
IP		Use at 2-5 µg/mg of lysate.
IHC-P		1/200 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## ターゲット情報

### 機能

Key component of PML nuclear bodies that regulate a large number of cellular processes by facilitating post-translational modification of target proteins, promoting protein-protein contacts, or by sequestering proteins. Functions as tumor suppressor. Required for normal, caspase-dependent apoptosis in response to DNA damage, FAS, TNF, or interferons. Plays a role in transcription regulation, DNA damage response, DNA repair and chromatin organization. Plays a role in processes regulated by retinoic acid, regulation of cell division, terminal differentiation of myeloid precursor cells and differentiation of neural progenitor cells. Required for normal immunity to microbial infections. Plays a role in antiviral response. In the cytoplasm, plays a role in TGFB1-dependent processes. Regulates p53/TP53 levels by inhibiting its ubiquitination and proteasomal degradation. Regulates activation of p53/TP53 via phosphorylation at 'Ser-20'. Sequesters MDM2 in the nucleolus after DNA damage, and thereby inhibits ubiquitination and degradation of p53/TP53. Regulates translation of HIF1A by sequestering MTOR, and thereby plays a role in neoangiogenesis and tumor vascularization. Regulates RB1 phosphorylation and activity. Required for normal development of the brain cortex during embryogenesis. Can sequester herpes virus and varicella virus proteins inside PML bodies, and thereby inhibit the formation of infectious viral particles. Regulates phosphorylation of ITPR3 and plays a role in the regulation of calcium homeostasis at the endoplasmic reticulum (By similarity). Regulates transcription activity of ELF4. Inhibits specifically the activity of the tetrameric form of PKM2. Together with SATB1, involved in local chromatin-loop remodeling and gene expression regulation at the MHC-I locus. Regulates PTEN compartmentalization through the inhibition of USP7-mediated deubiquitylation.

### 関連疾患

Note=A chromosomal aberration involving PML may be a cause of acute promyelocytic leukemia (APL). Translocation t(15;17)(q21;q21) with RARA. The PML breakpoints (type A and type B) lie on either side of an alternatively spliced exon.

### 配列類似性

Contains 2 B box-type zinc fingers.  
Contains 1 RING-type zinc finger.

### ドメイン

Interacts with PKM2 via its coiled-coil domain.  
Binds arsenic via the RING-type zinc finger.

### 翻訳後修飾

Ubiquitinated; mediated by RNF4, SIAH1 or SIAH2 and leading to subsequent proteasomal degradation. 'Lys-6'-, 'Lys-11'-, 'Lys-48'- and 'Lys-63'-linked polyubiquitination by RNF4 is polysumoylation-dependent.  
Undergoes 'Lys-11'-linked sumoylation. Sumoylation on all three sites is required for nuclear body formation. Sumoylation on Lys-160 is a prerequisite for sumoylation on Lys-65. The PML-RARA fusion protein requires the coiled-coil domain for sumoylation. Desumoylated by SENP2 and SENP6. Arsenic induces PML and PML-RARA oncogenic fusion proteins polysumoylation and their subsequent RNF4-dependent ubiquitination and proteasomal degradation, and is used as

treatment in acute promyelocytic leukemia (APL).

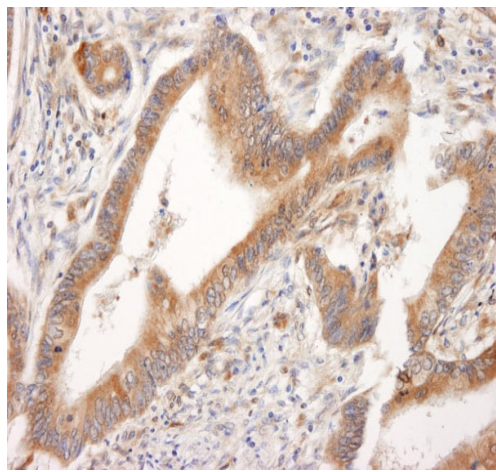
Phosphorylated in response to DNA damage, probably by ATR.

Acetylation may promote sumoylation and enhance induction of apoptosis.

## 細胞内局在

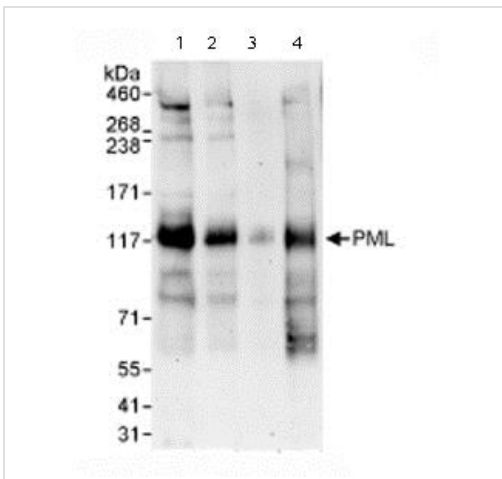
Nucleus > nucleoplasm. Cytoplasm. Nucleus > PML body. Nucleus > nucleolus. Endoplasmic reticulum membrane. Early endosome membrane. Sumoylated forms localize to the PML nuclear bodies. The B1 box and the RING finger are also required for this nuclear localization. Isoforms lacking a nuclear localization signal are cytoplasmic. Detected in the nucleolus after DNA damage. Sequestered in the cytoplasm by interaction with rabies virus phosphoprotein.

## 画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human prostate carcinoma tissue labelling PML Protein with ab72137 at 1/1000 (0.2µg/ml). Detection: DAB.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PML Protein antibody (ab72137)



**All lanes :** Anti-PML Protein antibody (ab72137) at 0.04 µg/ml

**Lane 1 :** Whole cell lysate from HeLa cells at 50 µg

**Lane 2 :** Whole cell lysate from HeLa cells at 15 µg

**Lane 3 :** Whole cell lysate from HeLa cells at 5 µg

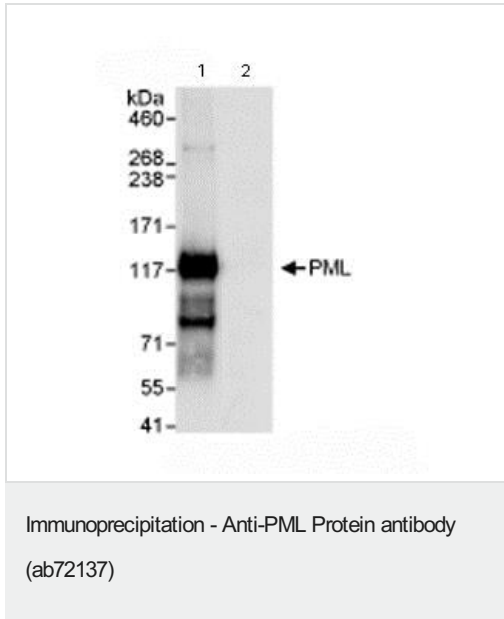
**Lane 4 :** Whole cell lysate from 293T cells at 50 µg

**Predicted band size:** 98 kDa

**Observed band size:** 98 kDa

Western blot - Anti-PML Protein antibody (ab72137)

Various other bands are detected, ranging from ~80-400 kDa.



Immunoprecipitation/ Western Blot of PML Protein.

Lane 1: ab72137 at 3 $\mu$ g/mg whole cell lysate.

Lane 2: Control IgG.

ab72137 at 1 $\mu$ g/ml for subsequent WB.

Whole cell lysate from Hela cells at 1mg for IP, 20% of IP loaded.

Detection: Chemiluminescence with an exposure time of 3 seconds.

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