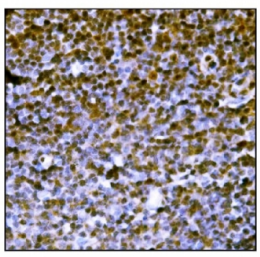
Protein PML Antibody / TRIM19 Polyclonal Antibody (RQ6506)

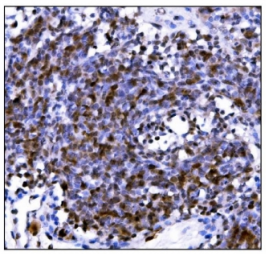
Catalog No.	Formulation	Size
RQ6506	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

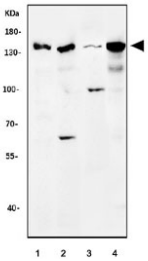
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q60953
Localization	Cytoplasmic, nuclear
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This Protein PML Antibody / TRIM19 Polyclonal Antibody is available for research use only.



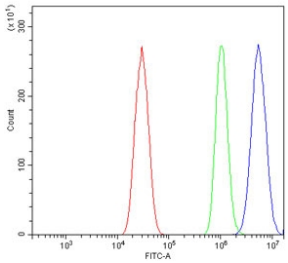
Protein PML Antibody IHC Staining of Mouse Lymph Node. Immunohistochemical analysis of FFPE mouse lymph node tissue using TRIM19 Polyclonal Antibody. Brown DAB immunoreactivity is observed throughout portions of the lymphoid tissue, with prominent staining in densely populated cellular regions. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8 for 20 minutes.



Protein PML Antibody IHC Staining of Rat Lymph Node. Immunohistochemical analysis of FFPE rat lymph node tissue using TRIM19 Polyclonal Antibody. Brown DAB immunoreactivity is detected in numerous cells throughout the tissue section, with variable staining intensity across the lymphoid regions. Heat-induced epitope retrieval was performed using EDTA buffer at pH 8 for 20 minutes.



Protein PML Antibody WB Analysis of Rat Testis, PC-12, Mouse Testis and RAW264.7 Lysates. Western blot analysis of rat testis (lane 1), rat PC-12 cells (lane 2), mouse testis (lane 3), and mouse RAW264.7 cells (lane 4) using TRIM19 Polyclonal Antibody. A prominent immunoreactive band is detected at approximately 120-130 kDa in all four samples. Additional bands are visible in some lanes. PML has multiple alternatively spliced isoforms and undergoes post-translational modifications, including SUMOylation, although the detected bands have not been assigned to specific molecular forms.



Protein PML Antibody FACS Staining of Mouse HEPA1-6 Cells. Flow cytometry analysis of mouse HEPA1-6 cells using TRIM19 Polyclonal Antibody at 1 ug per 1 x 10^6 cells. The antibody-stained population is represented by the blue histogram, with the isotype control shown in green and the unstained cells in red. Cells were blocked with goat serum before antibody staining.

Description

Protein PML Antibody / TRIM19 Polyclonal Antibody targets promyelocytic leukemia protein (PML), also known as TRIM19, a member of the tripartite motif family that functions in nuclear organization, tumor suppression, and cellular stress responses. PML is best known for its role in forming PML nuclear bodies, specialized nuclear structures that concentrate proteins involved in transcriptional regulation, apoptosis, senescence, and genome maintenance. The protein contains a conserved RBCC motif consisting of a RING finger domain, two B-box domains, and a coiled-coil region. These structural elements mediate protein interactions and contribute to the assembly of nuclear bodies.

PML nuclear bodies function as dynamic regulatory compartments rather than membrane-bound organelles. Their formation involves PML oligomerization and post-translational modifications, particularly SUMOylation, which facilitates recruitment of proteins containing SUMO-interacting motifs. PML also undergoes phosphorylation, ubiquitination, and other modifications that influence its stability, localization, and interactions. Alternative splicing generates multiple PML isoforms with distinct C-terminal sequences, contributing to differences in nuclear distribution and biological activity. These mechanisms allow PML nuclear bodies to respond to changing cellular conditions and coordinate diverse signaling pathways.

PML participates in the regulation of p53 signaling, cell cycle progression, apoptosis, and cellular senescence. Through interactions with transcription factors, chromatin-associated proteins, and signaling regulators, it contributes to cellular responses to oncogenic stress and DNA damage. PML expression is also induced by interferon signaling, supporting its involvement in antiviral defense and immune-related stress responses. Nuclear body composition and organization can change following oxidative stress, viral infection, and other challenges, reflecting the protein's role in maintaining cellular homeostasis.

The PML gene is closely associated with acute promyelocytic leukemia, where a chromosomal translocation involving the retinoic acid receptor alpha gene produces the PML-RARA fusion protein. This fusion disrupts normal PML nuclear body organization and alters transcriptional programs controlling cell differentiation. Therapeutic targeting of PML-RARA

promotes restoration of nuclear body structures and contributes to leukemia cell differentiation. Beyond hematologic malignancies, altered PML expression has been investigated in solid tumors, metabolic regulation, and aging-associated processes. Protein PML Antibody supports research into TRIM19 expression, nuclear body organization, and the molecular mechanisms connecting cellular stress responses with tumor suppression.

For complementary studies of PML expression and nuclear body regulation, our PML Antibody R32552 provides additional validation in human cell lysates and cancer tissues.

Application Notes

Optimal dilution of the Protein PML Antibody / TRIM19 Polyclonal Antibody should be determined by the researcher.

Immunogen

An E. coli-derived mouse protein (amino acids E107-A857) was used as the immunogen for the Protein PML antibody.

Storage

After reconstitution, the Protein PML antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

PML antibody, TRIM19 antibody, Promyelocytic leukemia protein antibody, Tripartite motif-containing protein 19 antibody, Promyelocytic leukemia nuclear body protein antibody, PML nuclear body protein antibody, PML tumor suppressor antibody, RING finger protein PML antibody, PML zinc finger protein antibody, PML protein antibody

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