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PRPF19 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4870a

Specification

PRPF19 Antibody (N-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q9UMS4
Other Accession	Q9JMJ4, Q99KP6, Q5ZMA2, Q08E38
Reactivity	**Human, Mouse**
Predicted	**Bovine, Chicken, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**55181**
Antigen Region	**4-33**

PRPF19 Antibody (N-term) - Additional Information

Gene ID 27339

Other Names
Pre-mRNA-processing factor 19, 632-, Nuclear matrix protein 200, PRP19/PSO4 homolog, hPso4, Senescence evasion factor, PRPF19 (HGNC:17896)

Target/Specificity
This PRPF19 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 4-33 amino acids from the N-terminal region of human PRPF19.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
PRPF19 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PRPF19 Antibody (N-term) - Protein Information

Name PRPF19 (HGNC:17896)

Function Ubiquitin-protein ligase which is a core component of several complexes mainly involved pre-mRNA splicing and DNA repair. Required for pre-mRNA splicing as component of the spliceosome (PubMed:28076346, PubMed:28502770, PubMed:29301961, PubMed:29360106, PubMed:30705154). Core component of the PRP19C/Prp19 complex/NTC/Nineteen complex which is part of the spliceosome and participates in its assembly, its remodeling and is required for its activity. During assembly of the spliceosome, mediates 'Lys-63'-linked polyubiquitination of the U4 spliceosomal protein PRPF3. Ubiquitination of PRPF3 allows its recognition by the U5 component PRPF8 and stabilizes the U4/U5/U6 tri- snRNP spliceosomal complex (PubMed:20595234). Recruited to RNA polymerase II C-terminal domain (CTD) and the pre-mRNA, it may also couple the transcriptional and spliceosomal machineries (PubMed:21536736). The XAB2 complex, which contains PRPF19, is also involved in pre-mRNA splicing, transcription and transcription-coupled repair (PubMed:17981804). Beside its role in pre-mRNA splicing PRPF19, as part of the PRP19-CDC5L complex, plays a role in the DNA damage response/DDR. It is recruited to the sites of DNA damage by the RPA complex where PRPF19 directly ubiquitinates RPA1 and RPA2. 'Lys-63'-linked polyubiquitination of the RPA complex allows the recruitment of the ATR-ATRIP complex and the activation of ATR, a master regulator of the DNA damage response (PubMed:24332808). May also play a role in DNA double-strand break (DSB) repair by recruiting the repair factor SETMAR to altered DNA (PubMed:18263876). As part of the PSO4 complex may also be involved in the DNA interstrand cross-links/ICLs repair process (PubMed:16223718). In addition, may also mediate 'Lys-48'-linked polyubiquitination of substrates and play a role in proteasomal degradation (PubMed:11435423). May play a role in the biogenesis of lipid droplets (By similarity). May play a role in neural differentiation possibly through its function as part of the spliceosome (By similarity).

Cellular Location
Nucleus. Nucleus, nucleoplasm. Cytoplasm, cytoskeleton, spindle. Cytoplasm. Lipid droplet {ECO:0000250|UniProtKB:Q99KP6}. Note=Nucleoplasmic in interphase cells Irregularly distributed in anaphase cells. In prophase cells, uniformly distributed, but not associated with condensing chromosomes. Found in extrachromosomal regions in metaphase cells. Mainly localized to the mitotic spindle apparatus when chromosomes segregate during anaphase When nuclei reform during late telophase, uniformly distributed in daughter cells and displays no preferred association with decondensing chromatin. Recruited on damaged DNA at sites of double-strand break

Tissue Location
Ubiquitous. Weakly expressed in senescent cells of different tissue origins. Highly expressed in tumor cell lines

PRPF19 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PRPF19 Antibody (N-term) - Images

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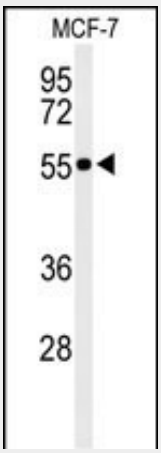
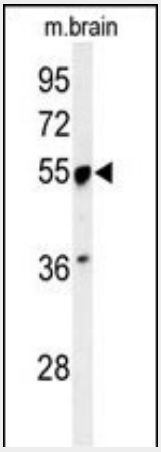
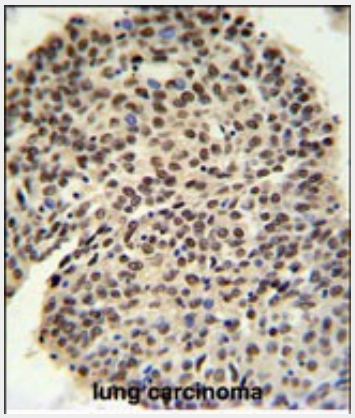


Western blot analysis of PRPF19 Antibody (N-term) (Cat. #AP4870a) in MCF-7 cell line lysates (35ug/lane). PRPF19 (arrow) was detected using the purified Pab.



Western blot analysis of PRPF19 Antibody (N-term) (Cat. #AP4870a) in mouse brain tissue lysates (35ug/lane). PRPF19 (arrow) was detected using the purified Pab.



PRPF19 Antibody (N-term) (Cat. #AP4870a) IHC analysis in formalin fixed and paraffin embedded lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PRPF19 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

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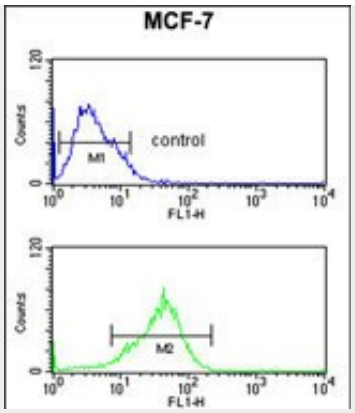

PRPF19 Antibody (N-term) (Cat. #AP4870a) flow cytometric analysis of MCF-7 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

PRPF19 Antibody (N-term) - Background

PRPF19 is the human homolog of yeast Pso4, a gene essential for cell survival and DNA repair.

PRPF19 Antibody (N-term) - References

Grillari, J., et al. J. Biol. Chem. 284(42):29193-29204(2009)
Beck, B.D., et al. J. Biol. Chem. 283(14):9023-9030(2008)
Fortschegger, K., et al. Mol. Cell. Biol. 27(8):3123-3130(2007)
Lu, X., et al. Biochem. Biophys. Res. Commun. 354(4):968-974(2007)

PRPF19 Antibody (N-term) - Citations

- PRPF19 promotes tongue cancer growth and chemoradiotherapy resistance