

**PRPF19 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP4870a****Specification****PRPF19 Antibody (N-term) Blocking Peptide -  
Product Information**Primary Accession [Q9UMS4](#)**PRPF19 Antibody (N-term) Blocking Peptide -  
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 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=17896](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=17896))  
target="\_blank">HGNC:17896</a>)

**Format**

Peptides are lyophilized in a solid powder  
format. Peptides can be reconstituted in  
solution using the appropriate buffer as  
needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6  
months. For long term storage store at  
-20°C.

**Precautions**

This product is for research use only. Not  
for use in diagnostic or therapeutic  
procedures.

**PRPF19 Antibody (N-term) Blocking Peptide -  
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:<a

**PRPF19 Antibody (N-term) Blocking  
Peptide - Background**

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

**PRPF19 Antibody (N-term) Blocking  
Peptide - 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)

href="http://www.uniprot.org/citations/28502770" target="\_blank">28502770</a>, PubMed:<a href="http://www.uniprot.org/citations/28076346" target="\_blank">28076346</a>, PubMed:<a href="http://www.uniprot.org/citations/29360106" target="\_blank">29360106</a>, PubMed:<a href="http://www.uniprot.org/citations/29301961" target="\_blank">29301961</a>, PubMed:<a href="http://www.uniprot.org/citations/30705154" target="\_blank">30705154</a>). 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:<a href="http://www.uniprot.org/citations/20595234" target="\_blank">20595234</a>). Recruited to RNA polymerase II C-terminal domain (CTD) and the pre-mRNA, it may also couple the transcriptional and spliceosomal machineries (PubMed:<a href="http://www.uniprot.org/citations/21536736" target="\_blank">21536736</a>). The XAB2 complex, which contains PRPF19, is also involved in pre-mRNA splicing, transcription and transcription-coupled repair (PubMed:<a href="http://www.uniprot.org/citations/17981804" target="\_blank">17981804</a>). 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:<a href="http://www.uniprot.org/citations/24332808" target="\_blank">24332808</a>). May also play a role in DNA double-strand break (DSB) repair by recruiting the repair factor SETMAR to altered DNA (PubMed:<a href="http://www.uniprot.org/citations/18263876" target="\_blank">18263876</a>). As part

of the PSO4 complex may also be involved in the DNA interstrand cross-links/ICLs repair process (PubMed:<a href="http://www.uniprot.org/citations/16223718" target="\_blank">16223718</a>). In addition, may also mediate 'Lys-48'-linked polyubiquitination of substrates and play a role in proteasomal degradation (PubMed:<a href="http://www.uniprot.org/citations/11435423" target="\_blank">11435423</a>). 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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)