

PRPF19 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP4870a**Specification**

PRPF19 Antibody (N-term) Blocking Peptide - Product InformationPrimary 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)
HGNC:17896

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: [28502770](http://www.uniprot.org/citations/28502770), PubMed: [28076346](http://www.uniprot.org/citations/28076346), PubMed: [29360106](http://www.uniprot.org/citations/29360106), PubMed: [29301961](http://www.uniprot.org/citations/29301961), PubMed: [30705154](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/20595234)). Recruited to RNA polymerase II C-terminal domain (CTD) and the pre-mRNA, it may also couple the transcriptional and spliceosomal machineries (PubMed: [20595234](http://www.uniprot.org/citations/20595234)).

<http://www.uniprot.org/citations/21536736> target="_blank">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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PRPF19 Antibody (N-term) Blocking Peptide - Images

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)