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PRP4 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP7551a

Specification

PRP4 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q13523

PRP4 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 8899

Other Names
Serine/threonine-protein kinase PRP4 homolog, PRP4 kinase, PRP4 pre-mRNA-processing factor 4 homolog, PRPF4B, KIAA0536, PRP4, PRP4H, PRP4K

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7551a was selected from the N-term region of human PRP4 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

PRP4 Antibody (N-term) Blocking Peptide - Protein Information

Name PRP4K (HGNC:17346)

Function
Serine/threonine kinase involved in spliceosomal assembly as well as mitosis and signaling regulation (PubMed:10799319, PubMed:12077342, PubMed:17513757, PubMed:17998396). Connects chromatin mediated regulation of transcription and pre-mRNA splicing (PubMed:12077342). During spliceosomal assembly, interacts with and phosphorylates PRPF6 and PRPF31, components of the U4/U6-U5 tri-small nuclear ribonucleoprotein (snRNP), to facilitate the formation of the spliceosome B complex. Plays a role in regulating transcription and the spindle assembly checkpoint (SAC) (PubMed:<a

href="http://www.uniprot.org/citations/20118938" target="_blank">20118938). Associates with U5 snRNP and NCOR1 deacetylase complexes which may allow a coordination of pre-mRNA splicing with chromatin remodeling events involved in transcriptional regulation (PubMed:12077342). Associates and probably phosphorylates SMARCA4 and NCOR1 (PubMed:12077342). Phosphorylates SRSF1 (PubMed:11418604). Associates with kinetochores during mitosis and is necessary for recruitment and maintenance of the checkpoint proteins such as MAD1L1 and MAD12L1 at the kinetochores (PubMed:17998396). Phosphorylates and regulates the activity of the transcription factors such as ELK1 and KLF13 (PubMed:10799319, PubMed:17513757). Phosphorylates nuclear YAP1 and WWTR1/TAZ which induces nuclear exclusion and regulates Hippo signaling pathway, involved in tissue growth control (PubMed:29695716).

Cellular Location
Nucleus. Chromosome, centromere, kinetochore Note=Located throughout the nucleus, excluding the nucleolus but enriched in multiple speckles.

Tissue Location
Ubiquitous.

PRP4 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

PRP4 Antibody (N-term) Blocking Peptide - Images

PRP4 Antibody (N-term) Blocking Peptide - Background

Pre-mRNA splicing occurs in two sequential transesterification steps, and PRP4 is thought to be involved in pre-mRNA splicing and in signal transduction. This protein belongs to a kinase family that includes serine/arginine-rich protein-specific kinases and cyclin-dependent kinases (CDKs). This protein is regarded as a CDK-like kinase (Clk) with homology to mitogen-activated protein kinases (MAPKs).

PRP4 Antibody (N-term) Blocking Peptide - References

Dellaire, G., et al., Mol. Cell. Biol. 22(14):5141-5156 (2002).Kojima, T., et al., J. Biol. Chem. 276(34):32247-32256 (2001).Huang, Y., et al., Biochem. Biophys. Res. Commun. 271(2):456-463 (2000).Gross, T., et al., Nucleic Acids Res. 25(5):1028-1035 (1997).