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PHF5A Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13500b

Specification

PHF5A Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q7RTV0

PHF5A Antibody (C-term) Blocking peptide - Additional Information

Gene ID 84844

Other Names
PHD finger-like domain-containing protein 5A, PHD finger-like domain protein 5A, Splicing factor 3B-associated 14 kDa protein, SF3b14b, PHF5A

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP13500b was selected from the C-term region of PHF5A. 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.

PHF5A Antibody (C-term) Blocking peptide - Protein Information

Name PHF5A

Function
Component of the 17S U2 SnRNP complex of the spliceosome, a large ribonucleoprotein complex that removes introns from transcribed pre-mRNAs (PubMed:27720643, PubMed:28541300, PubMed:12234937, PubMed:32494006, PubMed:34822310). The 17S U2 SnRNP complex (1) directly participates in early spliceosome assembly and (2) mediates recognition of the intron branch site during pre-mRNA splicing by promoting the selection of the pre-mRNA branch-site adenosine, the nucleophile for the first step of splicing (PubMed:12234937, PubMed:32494006, PubMed:<a

href="http://www.uniprot.org/citations/34822310" target="_blank">34822310). Within the 17S U2 SnRNP complex, PHF5A is part of the SF3B subcomplex, which is required for 'A' complex assembly formed by the stable binding of U2 snRNP to the branchpoint sequence in pre-mRNA (PubMed:12234937, PubMed:27720643). Sequence independent binding of SF3A and SF3B subcomplexes upstream of the branch site is essential, it may anchor U2 snRNP to the pre-mRNA (PubMed:12234937). Also acts as a component of the minor spliceosome, which is involved in the splicing of U12-type introns in pre-mRNAs (PubMed:15146077, PubMed:33509932). Also involved in elongation by RNA polymerase II as part of the PAF1 complex (PAF1C) (By similarity). PAF1C is required for maintenance of embryonic stem cell (ESC) self- renewal and cellular reprogramming of stem cells (By similarity). Maintains pluripotency by recruiting and stabilizing PAF1C on pluripotency genes loci, and by regulating the expression of the pluripotency genes (By similarity). Regulates the deposition of elongation-associated histone modifications, including dimethylated histone H3 'Lys-79' (H3K79me2) and trimethylated histone H3 'Lys-36' (H3K36me3), on PAF1C targets, self-renewal and pluripotency genes (By similarity). Regulates RNA polymerase II promoter-proximal pause release of the PAF1C targets and self-renewal genes, and the levels of elongating ('Ser-2' phosphorylated) RNA polymerase II in their gene bodies (By similarity). Regulates muscle specification in adult stem cells by stabilizing PAF1C in chromatin to promote myogenic differentiation (By similarity). Acts as a transcriptional regulator by binding to the GJA1/Cx43 promoter and enhancing its up-regulation by ESR1/ER-alpha (By similarity).

Cellular Location
Nucleus. Nucleus speckle {ECO:0000250|UniProtKB:P83870}

PHF5A Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

PHF5A Antibody (C-term) Blocking peptide - Images

PHF5A Antibody (C-term) Blocking peptide - Background

This gene encodes a subunit of the splicing factor 3bprotein complex. Splicing factor 3b, together with splicing factor3a and a 12S RNA unit, forms the U2 small nuclearribonucleoproteins complex (U2 snRNP). The splicing factor 3b/3acomplex binds pre-mRNA upstream of the intron's branch site in asequence-independent manner and may anchor the U2 snRNP to thepre-mRNA. The protein encoded by this gene contains aPHD-finger-like domain that is flanked by highly basic N-andC-termini. This protein belongs to the PHD-finger superfamily andmay act as a chromatin-associated protein. This gene has severalpseudogenes on different chromosomes.

PHF5A Antibody (C-term) Blocking peptide - References

Kuwasako, K., et al. Proteins 71(4):1617-1636(2008)Will, C.L., et al. RNA 10(6):929-941(2004)Collins, J.E., et al. Genome Biol. 5 (10), R84 (2004) :Will, C.L., et al. EMBO J. 21(18):4978-4988(2002)Zhou, Z., et al. Nature 419(6903):182-185(2002)