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PHF2a/b Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP1037b

Specification

PHF2a/b Blocking Peptide (C-term) - Product Information

Primary Accession	O75151
Other Accession	Q9WTU0

PHF2a/b Blocking Peptide (C-term) - Additional Information

Gene ID 5253

Other Names
Lysine-specific demethylase PHF2, 11411-, GRC5, PHD finger protein 2, PHF2, CENP-35, KIAA0662

Target/Specificity
The synthetic peptide sequence is selected from aa 1000-1017 of HUMAN PHF2

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.

PHF2a/b Blocking Peptide (C-term) - Protein Information

Name PHF2 (HGNC:8920)

Function
Lysine demethylase that demethylates both histones and non- histone proteins (PubMed:20129925, PubMed:21167174, PubMed:21532585). Enzymatically inactive by itself, and becomes active following phosphorylation by PKA: forms a complex with ARID5B and mediates demethylation of methylated ARID5B (PubMed:21532585). Demethylation of ARID5B leads to target the PHF2-ARID5B complex to target promoters, where PHF2 mediates demethylation of dimethylated 'Lys-9' of histone H3 (H3K9me2), followed by transcription activation of target genes (PubMed:21532585). The PHF2-ARID5B complex acts as a coactivator of HNF4A in liver. PHF2 is recruited to trimethylated 'Lys-4' of histone H3 (H3K4me3) at rDNA promoters and promotes expression of rDNA (PubMed:21532585). Involved in

the activation of toll-like receptor 4 (TLR4)-target inflammatory genes in macrophages by catalyzing the demethylation of trimethylated histone H4 lysine 20 (H4K20me3) at the gene promoters (By similarity).

Cellular Location
Nucleus, nucleolus. Chromosome, centromere, kinetochore

Tissue Location
Widely expressed, including in liver (at protein level).

PHF2a/b Blocking Peptide (C-term) - Protocols

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

- Blocking Peptides

PHF2a/b Blocking Peptide (C-term) - Images

PHF2a/b Blocking Peptide (C-term) - Background

This gene encodes a protein which contains a zinc finger-like PHD (plant homeodomain) finger, distinct from other classes of zinc finger motifs, and a hydrophobic and highly conserved domain. The PHD finger shows the typical Cys4-His-Cys3 arrangement. PHD finger genes are thought to belong to a diverse group of transcriptional regulators possibly affecting eukaryotic gene expression by influencing chromatin structure.

PHF2a/b Blocking Peptide (C-term) - References

Hasenpusch-Theil, K., et al., Mamm. Genome 10(3):294-298 (1999).