

JMJD2D Blocking Peptide (C-term)

Synthetic peptide

Catalog # BP1028b

Specification

JMJD2D Blocking Peptide (C-term) - Product Information

Primary Accession

[Q6B0I6](#)

Other Accession

[Q0VF39](#)**JMJD2D Blocking Peptide (C-term) - Additional Information**

Gene ID 55693

Other Names

Lysine-specific demethylase 4D, 11411-, JmjC domain-containing histone demethylation protein 3D, Jumonji domain-containing protein 2D, KDM4D, JHDM3D, JMJD2D

Target/Specificity

The synthetic peptide sequence is selected from aa 499-516 of HUMAN KDM4D

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.

JMJD2D Blocking Peptide (C-term) - Protein Information

Name KDM4D

Synonyms JHDM3D, JMJD2D

Function

Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Does not demethylate histone H3 'Lys-4', H3 'Lys-27', H3 'Lys-36' nor H4 'Lys-20'. Demethylates both di- and trimethylated H3 'Lys-9' residue, while it has no activity on monomethylated residues. Demethylation of Lys residue generates formaldehyde and succinate.

Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00537, ECO:0000269|PubMed:35145029}

JMJD2D Blocking Peptide (C-term) - Protocols

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

- [Blocking Peptides](#)

JMJD2D Blocking Peptide (C-term) - Images

JMJD2D Blocking Peptide (C-term) - Background

Covalent modification of histones plays critical role in regulating chromatin structure and transcription. While most covalent histone modifications are reversible, only recently has it been established that methyl groups are subject to enzymatic removal from histones. A family of novel JmjC domain-containing histone demethylation (JHDM) enzymes have been identified that perform this specific function. Histone demethylation by JHDM proteins requires cofactors Fe(II) and alpha-ketoglutarate. Family members include JHDM1 (demethylating histone 3 at lysine 36), and JHDM2A as well as JMJD2CH3K9 (both of which demethylate histone 3 at lysine 9). Contributions of histone demethylase activity to tumor development, decreases in cell proliferation, and hormone-dependent transcriptional activation have been observed.

JMJD2D Blocking Peptide (C-term) - References

Katoh, M., et al., Int. J. Oncol. 24(6):1623-1628 (2004).