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KMT4 / Dot1L Antibody (C-Term) Blocking peptide

Synthetic peptide
Catalog # BP1198b

Specification

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Product Information

Primary Accession	Q8TEK3
Other Accession	NP_115871

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Additional Information

Gene ID 84444

Other Names
Histone-lysine N-methyltransferase, H3 lysine-79 specific, DOT1-like protein, Histone H3-K79 methyltransferase, H3-K79-HMTase, Lysine N-methyltransferase 4, DOT1L, KIAA1814, KMT4

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1198b was selected from the C-term region of human DOT1L. 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.

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Protein Information

Name DOT1L (HGNC:24948)

Synonyms KIAA1814, KMT4

Function
Histone methyltransferase. Methylates 'Lys-79' of histone H3. Nucleosomes are preferred as substrate compared to free histones (PubMed:12123582). Binds to DNA (PubMed:12628190).

Cellular Location
Nucleus.

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KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Protocols

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

- Blocking Peptides

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Images

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - Background

Similar to acetylation and phosphorylation, histone methylation at the N-terminal tail has emerged as an important role in regulating chromatin dynamics and gene activity. Histone methylation occurs on arginine and lysine residues and is catalyzed by two families of proteins, the protein arginine methyltransferase family and the SET-domain-containing methyltransferase family. Five members have been identified in the arginine methyltransferase family. About 27 are grouped into the SET-domain family, and another 17 make up the PR domain family that is related to the SET domain family. The retinoblastoma protein-interacting zinc finger geneRIZ1 is a tumor suppressor gene and a FOUNDING member of the PR domain family. RIZ1 inactivation is commonly found in many types of human cancers and occurs through loss of mRNA expression, frame shift mutation, chromosomal deletion, and missense mutation. RIZ1 is also a tumor susceptibility gene in mice. The loss of RIZ1 mRNA in human cancers was shown to associate with DNA methylation of its promoter CpG island. Methylation of the RIZ1 promoter strongly correlated with lost or decreased RIZ1 mRNA expression in breast, liver, colon, and lung cancer cell lines as well as in liver cancer tissues.

KMT4 / Dot1L Antibody (C-Term) Blocking peptide - References

Feng, Q., et al., Curr. Biol. 12(12):1052-1058 (2002).