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SETD1A Blocking Peptide(Center)

Synthetic peptide
Catalog # BP19714c

Specification

SETD1A Blocking Peptide(Center) - Product Information

Primary Accession	O15047
Other Accession	NP_055527.1

SETD1A Blocking Peptide(Center) - Additional Information

Gene ID 9739

Other Names
Histone-lysine N-methyltransferase SETD1A, Lysine N-methyltransferase 2F, SET domain-containing protein 1A, hSET1A, Set1/Ash2 histone methyltransferase complex subunit SET1, SETD1A

Target/Specificity
The synthetic peptide sequence is selected from aa 942-956 of HUMAN SETD1A

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.

SETD1A Blocking Peptide(Center) - Protein Information

Name SETD1A

Function
Histone methyltransferase that catalyzes methyl group transfer from S-adenosyl-L-methionine to the epsilon-amino group of 'Lys-4' of histone H3 (H3K4) via a non-processive mechanism (PubMed:25561738, PubMed:12670868). Part of chromatin remodeling machinery, forms H3K4me1, H3K4me2 and H3K4me3 methylation marks at active chromatin sites where transcription and DNA repair take place (PubMed:29937342, PubMed:31197650, PubMed:32346159). Responsible for H3K4me3 enriched promoters and transcriptional programming of inner mass stem cells and neuron progenitors during embryogenesis (By similarity) (PubMed:31197650). Required for

H3K4me1 mark at stalled replication forks. Mediates FANCD2-dependent nucleosome remodeling and RAD51 nucleofilaments stabilization at reversed forks, protecting them from nucleolytic degradation (PubMed:29937342, PubMed:32346159). Does not methylate 'Lys-4' of histone H3 if the neighboring 'Lys-9' residue is already methylated (PubMed:12670868).

Cellular Location
Nucleus speckle. Chromosome. Note=Localizes to a largely non-overlapping set of euchromatic nuclear speckles with SETD1B, suggesting that SETD1A and SETD1B each bind to a unique set of target genes

SETD1A Blocking Peptide(Center) - Protocols

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

- Blocking Peptides

SETD1A Blocking Peptide(Center) - Images

SETD1A Blocking Peptide(Center) - Background

SET1A is a component of a histone methyltransferase (HMT) complex that produces mono-, di-, and trimethylated histone H3 at Lys4. The complex is the analog of the S. cerevisiae Set1/COMPASS complex (Lee and Skalnik, 2005 [PubMed 16253997]). Also see SET1B (MIM 611055).

SETD1A Blocking Peptide(Center) - References

Wu, M., et al. Mol. Cell. Biol. 28(24):7337-7344(2008)
Nguyen, P., et al. Mol. Cell. Biol. 28(21):6720-6729(2008)
Ansari, K.I., et al. Biochim. Biophys. Acta 1779(1):66-73(2008)
Lee, J.H., et al. Mol. Cell. Biol. 28(2):609-618(2008)
Cho, Y.W., et al. J. Biol. Chem. 282(28):20395-20406(2007)