

SETD8 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6557c**Specification**

SETD8 Antibody (Center) Blocking Peptide - Product InformationPrimary Accession [O9NQR1](#)**SETD8 Antibody (Center) Blocking Peptide - Additional Information**

Gene ID 387893

Other Names

N-lysine methyltransferase SETD8, 211-, H4-K20-HMTase SETD8, Histone-lysine N-methyltransferase SETD8, Lysine N-methyltransferase 5A, PR/SET domain-containing protein 07, PR-Set7, PR/SET07, SET domain-containing protein 8, SETD8, KMT5A, PRSET7, SET07, SET8

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6557c](/products/AP6557c) was selected from the Center region of human SETD8. 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.

SETD8 Antibody (Center) Blocking Peptide - Protein InformationName KMT5A ([HGNC:29489](#))**Function**

Protein-lysine N-methyltransferase that monomethylates both histones and non-histone proteins (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [17707234](http://www.uniprot.org/citations/17707234), PubMed: [27338793](http://www.uniprot.org/citations/27338793)). Specifically monomethylates 'Lys-20' of histone H4 (H4K20me1) (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [17707234](http://www.uniprot.org/citations/17707234), PubMed: [27338793](http://www.uniprot.org/citations/27338793)).

[27338793](http://www.uniprot.org/citations/27338793), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). H4K20me1 is enriched during mitosis and represents a specific tag for epigenetic transcriptional repression (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). Required for cell proliferation, probably by contributing to the maintenance of proper higher-order structure of DNA during mitosis (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). Involved in chromosome condensation and proper cytokinesis (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). Nucleosomes are preferred as substrate compared to free histones (PubMed: [12086618](http://www.uniprot.org/citations/12086618), PubMed: [12121615](http://www.uniprot.org/citations/12121615), PubMed: [15964846](http://www.uniprot.org/citations/15964846), PubMed: [15200950](http://www.uniprot.org/citations/15200950), PubMed: [15933069](http://www.uniprot.org/citations/15933069), PubMed: [15933070](http://www.uniprot.org/citations/15933070), PubMed: [16517599](http://www.uniprot.org/citations/16517599)). Mediates monomethylation of p53/TP53 at 'Lys-382', leading to repress p53/TP53-target genes (PubMed: [17707234](http://www.uniprot.org/citations/17707234)). Plays a negative role in TGF- β response regulation and a positive role in cell migration (PubMed: [23478445](http://www.uniprot.org/citations/23478445)).

Cellular Location

Nucleus. Chromosome. Note=Specifically localizes to mitotic chromosomes (PubMed:12208845). Colocalized with SIRT2 at mitotic foci (PubMed:23468428). Associates with chromosomes during mitosis; association is increased in a H₂O₂-induced oxidative stress- dependent manner (PubMed:23468428). Associates with silent chromatin on euchromatic arms (PubMed:12086618). Not associated with constitutive heterochromatin (PubMed:12086618).

SETD8 Antibody (Center) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

SETD8 Antibody (Center) Blocking Peptide - Images

SETD8 Antibody (Center) Blocking Peptide - Background

SETD8 is a histone methyltransferase that specifically monomethylates 'Lys-20' of histone H4. H4 'Lys-20' monomethylation is enriched during mitosis and represents a specific tag for epigenetic transcriptional repression. The protein mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes. It is required for cell proliferation, probably by contributing to the maintenance of proper higher order structure of DNA during mitosis. It is also involved in chromosome condensation and proper cytokinesis. Nucleosomes are preferred as substrate compared to free histones.

SETD8 Antibody (Center) Blocking Peptide - References

Kalakonda,N., Oncogene 27 (31), 4293-4304 (2008)Houston,S.I., J. Biol. Chem. 283 (28), 19478-19488 (2008)