

**SETD8 Antibody (Center)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6557c****Specification**

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**SETD8 Antibody (Center) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">O9NQR1</a>
Other Accession	<a href="#">Q2YDJ8</a>
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42890
Antigen Region	220-249

**SETD8 Antibody (Center) - 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**

This SETD8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 220-249 amino acids from the Central region of human SETD8.

**Dilution**

WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SETD8 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**SETD8 Antibody (Center) - Protein Information**

**Name** KMT5A ([HGNC:29489](#))

**Function** Protein-lysine N-methyltransferase that monomethylates both histones and non-histone proteins (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[17707234](#), PubMed:[27338793](#)). Specifically monomethylates 'Lys-20' of histone H4 (H4K20me1) (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[27338793](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). H4K20me1 is enriched during mitosis and represents a specific tag for epigenetic transcriptional repression (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). Mainly functions in euchromatin regions, thereby playing a central role in the silencing of euchromatic genes (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). Required for cell proliferation, probably by contributing to the maintenance of proper higher-order structure of DNA during mitosis (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). Involved in chromosome condensation and proper cytokinesis (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). Nucleosomes are preferred as substrate compared to free histones (PubMed:[12086618](#), PubMed:[12121615](#), PubMed:[15964846](#), PubMed:[15200950](#), PubMed:[15933069](#), PubMed:[15933070](#), PubMed:[16517599](#)). Mediates monomethylation of p53/TP53 at 'Lys-382', leading to repress p53/TP53-target genes (PubMed:[17707234](#)). Plays a negative role in TGF- beta response regulation and a positive role in cell migration (PubMed:[23478445](#)).

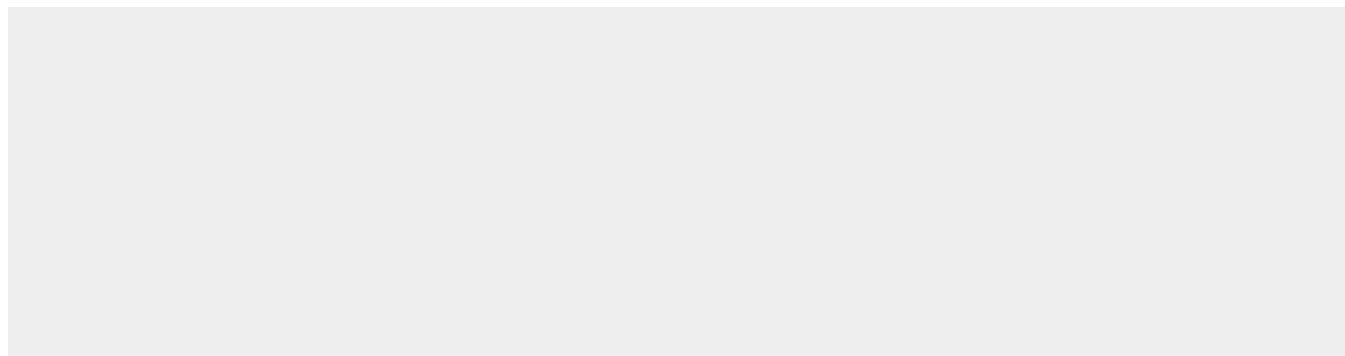
**Cellular Location**

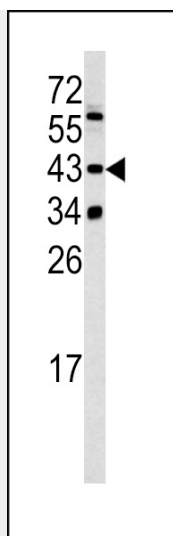
Nucleus. Chromosome. Note=Specifically localizes to mitotic chromosomes (PubMed:12208845). Colocalized with SIRT2 at mitotic foci (PubMed:23468428). Associates with chromosomes during mitosis; association is increased in a H<sub>2</sub>O<sub>2</sub>-induced oxidative stress- dependent manner (PubMed:23468428). Associates with silent chromatin on euchromatic arms (PubMed:12086618). Not associated with constitutive heterochromatin (PubMed:12086618).

**SETD8 Antibody (Center) - Protocols**

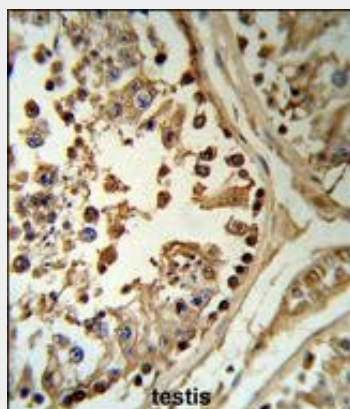
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

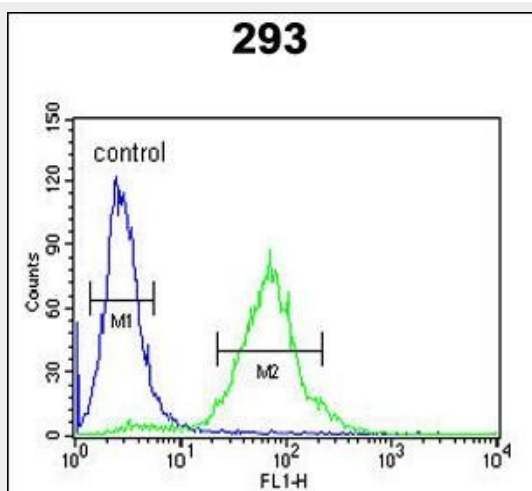
**SETD8 Antibody (Center) - Images**



Western blot analysis of SETD8 antibody (Center) (Cat. #AP6557c) in 293 cell line lysates (35ug/lane). SETD8 (arrow) was detected using the purified Pab.



SETD8 Antibody (Center) (RB18964) IHC analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SETD8 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



SETD8 Antibody (Center) (Cat. #AP6557c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

**SETD8 Antibody (Center) - 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) - References**

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