

Rabbit KMT5A Polyclonal Antibody | anti-KMT5A antibody

Phospho-KMT5A (Ser100) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328254	Rabbit	Human, Mouse, RatPredicted: Pig, Bovine, Horse, Sheep, Dog, Xenopus	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

KMT5A; Polyclonal Antibody; Phospho-KMT5A (Ser100) Antibody; H4 K20 HMTase; H4 K20 specific histone methyltransferase; H4-K20-HMTase SETD8; Histone H4 K20 methyltransferase; Histone lysine N methyltransferase H4 lysine 20 specific; Histone-lysine N-methyltransferase SETD8; Lysine N-methyltransferase 5A; N-lysine methyltransferase SETD8; Pr SET 7; Pr SET7; PR-Set7; PR/SET domain containing protein 07; PR/SET domain containing protein 8; PR/SET domain-containing protein 07; PR/SET07; PrSET7; SET 07; SET 8; SET domain containing (lysine methyltransferase) 8; SET domain containing 8; SET domain containing lysine methyltransferase 8; SET domain containing protein 8; SET domain-containing protein 8; SET07; SET8; SETD 8; setd8; SETD8_HUMAN; anti-KMT5A antibody

PRODUCT SPECIFICATIONS

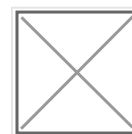
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted: Pig, Bovine, Horse, Sheep, Dog, Xenopus
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-KMT5A(Ser100) Antibody detects endogenous levels of KMT5A only when phosphorylated at Ser100.
Purity/Purification	Purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Form/Format	Liquid; Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	393
Applicable Applications for anti-KMT5A antibody	ELISA (Peptide ELISA), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human KMT5A around the phosphorylation site of Ser100.
Tissue Specificity	Not detected during G1 phase. First detected during S through G2 phases, and peaks during mitosis (at protein level).
Subcellular Location	Nucleus
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)

Western blot analysis of Phospho-KMT5A(Ser100) in lysates of 293T, using Phospho-KMT5A(Ser100) Antibody.



IHC (Immunohistochemistry)

At 1/100 staining mouse liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining rat liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary



IHC (Immunohistochemistry)

At 1/100 staining human liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary

ADDITIONAL INFORMATION

Related Product Information for anti-KMT5A antibody

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

Post Translational Modifications: Acetylated at Lys-172; does not change methyltransferase activity. Deacetylated at Lys-172 by SIRT2; does not change methyltransferase activity. Ubiquitinated and degraded by the DCX(DTL) complex.

Subunit Structure: Interacts with L3MBTL1. Isoform 2 interacts with SIRT2 (phosphorylated form); the interaction is direct, stimulates KMT5A-mediated methyltransferase activity at histone H4 'Lys-20' (H4K20me1) and is increased in a H2O2-induced oxidative stress-dependent manner.

Similarity: Although the SET domain contains the active site of enzymatic activity, both sequences upstream and downstream of the SET domain are required for methyltransferase activity. Belongs to the class V-like SAM-binding methyltransferase superfamily. Histone-lysine methyltransferase family. PR/SET subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	25091219
NCBI GeneID	387893
UniProt Accession #	Q9NQR1
Molecular Weight	Observed: 43 kDa Predicted: 43 kDa
NCBI Official Full Name	N-lysine methyltransferase KMT5A
NCBI Official Synonym Full Names	lysine methyltransferase 5A
NCBI Official Symbol	KMT5A
NCBI Official Synonym Symbols	SET8; SET07; SETD8; PR-Set7; PR/SET07
NCBI Protein Information	N-lysine methyltransferase KMT5A
UniProt Protein Name	N-lysine methyltransferase SETD8
UniProt Gene Name	SETD8
UniProt Synonym Gene Names	KMT5A; PRSET7; SET07; SET8; PR-Set7; PR/SET07
UniProt Entry Name	SETD8_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

