

H3-K9-HMTase (Y-19): sc-54503

BACKGROUND

H3-K9-HMTase (histone-lysine N-methyltransferase SETDB2) is a 719 amino acid protein encoded by the human gene SETDB2. H3-K9-HMTase, which belongs to the histone-lysine methyltransferase family, contains one MBD (methyl-CpG-binding) domain, one pre-SET domain and one SET domain. H3-K9-HMTase is believed to be a probable histone methyltransferase with catalytic activity. Epigenetic gene silencing in eukaryotes is regulated in part by lysine methylation of the core histone proteins. While histone lysine methylation is known to control gene expression through the recruitment of modification-specific effector proteins, it remains unknown whether non-histone chromatin proteins are targets for similar modification-recognition systems. Located in the nucleus, H3-K9-HMTase is ubiquitously expressed with highest expression found in heart, testis and ovary.

REFERENCES

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3. Tachibana, M., Ueda, J., Fukuda, M., Takeda, N., Ohta, T., Iwanari, H., Sakihama, T., Kodama, T., Hamakubo, T. and Shinkai, Y. 2005. Histone methyltransferases G9a and GLP form heteromeric complexes and are both crucial for methylation of euchromatin at H3-K9. *Genes Dev.* 19: 815-826.
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CHROMOSOMAL LOCATION

Genetic locus: SETDB2 (human) mapping to 13q14; Setdb2 (mouse) mapping to 14 C3.

SOURCE

H3-K9-HMTase (Y-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of H3-K9-HMTase of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54503 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

H3-K9-HMTase (Y-19) is recommended for detection of H3-K9-HMTase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

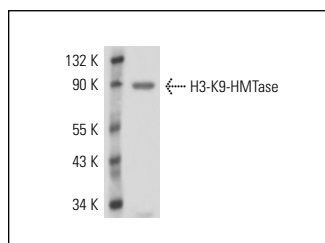
Suitable for use as control antibody for H3-K9-HMTase siRNA (h): sc-62429; and as shRNA Plasmid control antibody for H3-K9-HMTase shRNA Plasmid (h): sc-62429-SH.

Molecular Weight of H3-K9-HMTase: 82 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



H3-K9-HMTase (Y-19): sc-54503. Western blot analysis of H3-K9-HMTase expression in Hep G2 nuclear extract.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **H3-K9-HMTase (LD87): sc-130475**, our highly recommended monoclonal alternative to H3-K9-HMTase (Y-19).