

SUV39H2 (E-14): sc-54340

BACKGROUND

Distinct modifications of histone tails, such as acetylation, phosphorylation and methylation, regulate nuclear processes by organizing chromatin into higher order structures. Higher order chromatin influences chromosome function and epigenetic gene regulation. SUV39H2 (suppressor of variegation 3-9 homolog 2), also known as KMT1B or Histone H3-K9 methyltransferase 2, is a 410 amino acid protein that localizes to the centromere and contains one SET domain, one pre-SET domain, one post-SET domain and one chromo domain. Expressed at high levels in adult testis, SUV39H2 functions as a histone methyltransferase that trimethylates the Lys-9 residue of Histone H3, thereby playing an essential role in establishing constitutive heterochromatin at pericentric and telomere regions. SUV39H2 conveys its enzymatic activity via its multiple catalytic domains, which are necessary for both stable binding of SUV39H2 to chromatin and for SUV39H2 methyltransferase activity. Multiple isoforms of SUV39H2 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SUV39H2 (human) mapping to 10p13; Suv39h2 (mouse) mapping to 2 A1.

SOURCE

SUV39H2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SUV39H2 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-54340 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SUV39H2 (E-14) is recommended for detection of SUV39H2 isoforms 1, 2 and 3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SUV39H2 (E-14) is also recommended for detection of SUV39H2 isoforms 1, 2 and 3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SUV39H2 siRNA (h): sc-106822, SUV39H2 siRNA (m): sc-153944, SUV39H2 shRNA Plasmid (h): sc-106822-SH, SUV39H2 shRNA Plasmid (m): sc-153944-SH, SUV39H2 shRNA (h) Lentiviral Particles: sc-106822-V and SUV39H2 shRNA (m) Lentiviral Particles: sc-153944-V.

Molecular Weight of SUV39H2: 53 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

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) 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.