

NSD3 (H-8): sc-271839

BACKGROUND

The deduced 1,437 amino acid NSD3 protein contains two PWWP domains involved in protein-protein interactions, five PHD-type zinc finger motifs found in chromatin-associated proteins, a SAC (SET-associated cys-rich) domain, a SET domain and a C-terminal C5HCH domain. Two NSD3 variants have been identified. The short variant comprised of 645 amino acids, arises from alternative polyadenylation and exon splicing and contains a single PWWP domain. A longer NSD3 variant, which is only expressed in HeLa cells, is comprised of 1,388 amino acid residues. The human WHSC1L1 gene, which encodes the NSD3 protein, shares 68% and 55% identity with mouse Nsd1 and human WHSC1, respectively. Highest expression of NSD3 is observed in brain, heart and skeletal muscle tissues; lower levels of NSD3 expression are observed in the liver and lungs.

REFERENCES

1. Angrand, P.O., et al. 2001. NSD3, a new SET domain-containing gene, maps to 8p12 and is amplified in human breast cancer cell lines. *Genomics* 74: 79-88.
2. Stec, I., et al. 2001. WHSC1L1, on human chromosome 8p11.2, closely resembles WHSC1 and maps to a duplicated region shared with 4p16.3. *Genomics* 76: 5-8.

CHROMOSOMAL LOCATION

Genetic locus: WHSC1L1 (human) mapping to 8p11.23; Whsc1l1 (mouse) mapping to 8 A2.

SOURCE

NSD3 (H-8) is a mouse monoclonal antibody raised against amino acids 319-618 mapping within an internal region of NSD3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NSD3 (H-8) is recommended for detection of NSD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 NSD3 siRNA (h): sc-61235, NSD3 siRNA (m): sc-61236, NSD3 shRNA Plasmid (h): sc-61235-SH, NSD3 shRNA Plasmid (m): sc-61236-SH, NSD3 shRNA (h) Lentiviral Particles: sc-61235-V and NSD3 shRNA (m) Lentiviral Particles: sc-61236-V.

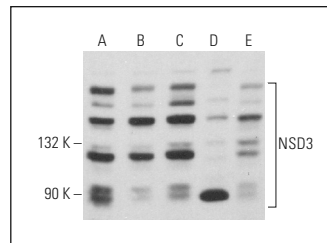
Molecular Weight of NSD3 isoforms 1-4: 162/156/73/155 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or A-673 cell lysate: sc-2414.

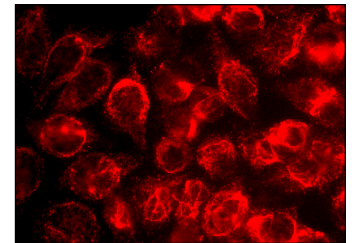
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NSD3 (H-8): sc-271839. Western blot analysis of NSD3 expression in A-673 (A), MCF7 (B), HeLa (C), NIH/3T3 (D) and HEK293 (E) whole cell lysates.



NSD3 (H-8): sc-271839. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

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 for detailed protocols and support products.