

NSD3 (S-20): sc-50154

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.
3. Rosati, R., et al. 2002. NUP98 is fused to the NSD3 gene in acute myeloid leukemia associated with t(8;11)(p11.2;p15). *Blood* 99: 3857-3860.
4. Douglas, J., et al. 2005. Evaluation of NSD2 and NSD3 in overgrowth syndromes. *Eur. J. Hum. Genet.* 13: 150-153.
5. Tonon, G., et al. 2005. High-resolution genomic profiles of human lung cancer. *Proc. Natl. Acad. Sci. USA* 102: 9625-9630.

CHROMOSOMAL LOCATION

Genetic locus: WHSC1L1 (human) mapping to 8p11.23; Whsc111 (mouse) mapping to 8 A2.

SOURCE

NSD3 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NSD3 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-50154 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

NSD3 (S-20) is recommended for detection of NSD3 of mouse, rat and 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).

NSD3 (S-20) is also recommended for detection of NSD3 in additional species, including equine, canine, bovine and porcine.

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.

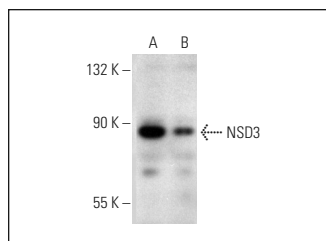
Molecular Weight of NSD3 isoforms 1-4: 162/156/73/155 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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



NSD3 (S-20): sc-50154. Western blot analysis of NSD3 expression in HeLa (A) and HEK293 (B) whole cell lysates.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **NSD3 (E-3): sc-398186** or **NSD3 (H-8): sc-271839**, our highly recommended monoclonal alternatives to NSD3 (S-20).