

# NSD3 (H-300): sc-134817

## BACKGROUND

The deduced 1,437 amino acid NSD3 protein contains 2 PWWP domains involved in protein-protein interactions, 5 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NSD3 (H-300) is a rabbit polyclonal antibody raised against amino acids 319-618 mapping within an internal region 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.

## 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.

## APPLICATIONS

NSD3 (H-300) 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 (H-300) 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.

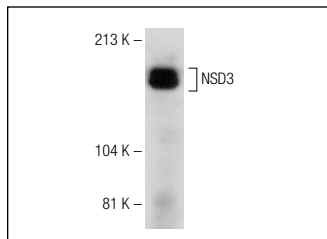
Molecular Weight of NSD3 isoforms 1-4: 162/156/73/155 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or rat heart extract: sc-2393.

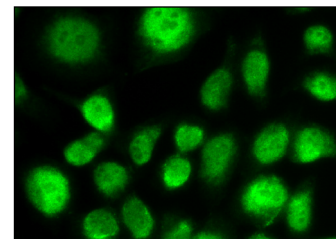
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



NSD3 (H-300): sc-134817. Western blot analysis of NSD3 expression in rat heart tissue extract.



NSD3 (H-300): sc-134817. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Children's Hospital, Cell Biology Department, Harvard Medical School.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **NSD3 (E-3): sc-398186** or **NSD3 (H-8): sc-271839**, our highly recommended monoclonal alternatives to NSD3 (H-300).