

NSD3 (2E9): sc-130009

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

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- Rosati, R., La Starza, R., Veronese, A., Aventin, A., Schwienbacher, C., Vallespi, T., Negrini, M., Martelli, M.F. and Mecucci, C. 2002. NUP98 is fused to the NSD3 gene in acute myeloid leukemia associated with t(8;11)(p11.2;p15). *Blood* 99: 3857-3860.
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- Tonon, G., Wong, K.K., Maulik, G., Brennan, C., Feng, B., Zhang, Y., Khatri, D.B., Protopopov, A., You, M.J., Aguirre, A.J., Martin, E.S., Yang, Z., Ji, H., Chin, L. and Depinho, R.A. 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.

SOURCE

NSD3 (2E9) is a mouse monoclonal antibody raised against amino acids 383-660 of recombinant NSD3 of human origin.

PRODUCT

Each vial contains 50 µg IgG_{2b} in 500 µl 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.

APPLICATIONS

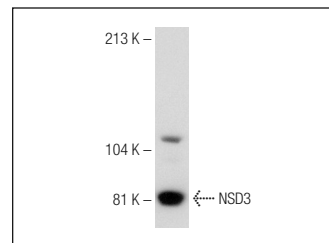
NSD3 (2E9) is recommended for detection of NSD3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NSD3 siRNA (h): sc-61235, NSD3 shRNA Plasmid (h): sc-61235-SH and NSD3 shRNA (h) Lentiviral Particles: sc-61235-V.

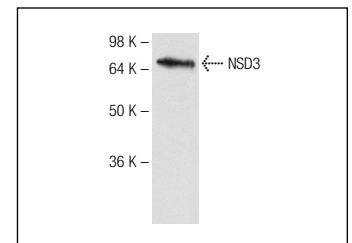
Molecular Weight of NSD3 isoforms 1-4: 162/156/73/155 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or MCF7 nuclear extract: sc-2149.

DATA



NSD3 (2E9): sc-130009. Western blot analysis of NSD3 expression in MCF7 nuclear extract.



NSD3 (2E9): sc-130009. Western blot analysis of NSD3 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

- Dutt, A., Ramos, A.H., Hammerman, P.S., Mermel, C., Cho, J., Sharifnia, T., Chande, A., Tanaka, K.E., Stransky, N., Greulich, H., Gray, N.S. and Meyerson, M. 2011. Inhibitor-sensitive FGFR1 amplification in human non-small cell lung cancer. *PLoS ONE* 6: e20351.

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.