SANTA CRUZ BIOTECHNOLOGY, INC.

Ndn (N-20): sc-18255

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Prader-Willi syndrome (PWS) is a neurogenetic disorder resulting from the loss of paternal expression of gene(s) localized in the 15q11-q12 region. Clinical manifestations of this disease include feeding problems in infancy, temper outbursts, perseveration, obsessive-compulsive symptoms and sleep disturbances. Necdin (Ndn) protein is generated from an intronless gene that is located in the Prader-Willi syndrome deletion region. Studies in mouse suggest that the protein encoded by this gene may suppress growth in post-mitotic neurons. Ndn expression in brain is restricted to post-mitotic neurons and parental alleles display a differential methylation profile in the coding region. Reduced expression of Ndn is responsible for at least a subset of the clinical manifestations of PWS, including skin picking and improved spatial memory.

REFERENCES

1. Watrin, F., et al. 1997. The mouse Necdin gene is expressed from the paternal allele only and lies in the 7C region of the mouse chromosome 7, a region of conserved synteny to the human Prader-Willi syndrome region. Eur. J. Hum. Genet. 5: 324-332.
2. Jay, P., et al. 1997. The human Necdin gene, NDN, is maternally imprinted and located in the Prader-Willi syndrome chromosomal region. Nat. Genet. 17: 357-361.
3. Muscatelli, F., et al. 2000. Disruption of the mouse Necdin gene results in hypothalamic and behavioral alterations reminiscent of the human Prader-Willi syndrome. Hum. Mol. Genet. 9: 3101-3110.
4. Oeffner, F., et al. 2001. Systematic screening for mutations in the human Necdin gene (NDN): identification of two naturally occurring polymorphisms and association analysis in body weight regulation. Int. J. Obes. Relat. Metab. Disord. 25: 767-779.

CHROMOSOMAL LOCATION

Genetic locus: NDN (human) mapping to 15q11.2; Ndn (mouse) mapping to 7 C.

SOURCE

Ndn (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ndn 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-18255 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.

APPLICATIONS

Ndn (N-20) is recommended for detection of Ndn 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).

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

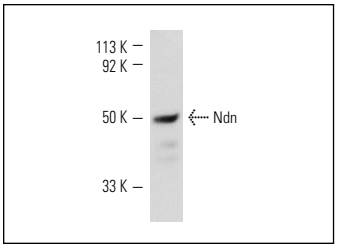
Suitable for use as control antibody for Ndn siRNA (h): sc-37318, Ndn siRNA (m): sc-37319, Ndn shRNA Plasmid (h): sc-37318-SH, Ndn shRNA Plasmid (m): sc-37319-SH, Ndn shRNA (h) Lentiviral Particles: sc-37318-V and Ndn shRNA (m) Lentiviral Particles: sc-37319-V.

Molecular Weight (predicted) of Ndn: 36 kDa.

Molecular Weight (observed) of Ndn: 50 kDa.

Positive Controls: mouse embryo extract: sc-364239 or HL-60 whole cell lysate: sc-2209.

DATA



Ndn (N-20): sc-18255. Western blot analysis of Ndn expression in mouse embryo tissue extract

SELECT PRODUCT CITATIONS

1. Friedman, E.R., et al. 2007. Separate necdin domains bind ARNT2 and HIF-1α and repress transcription. Biochem. Biophys. Res. Commun. 363: 113-118.

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.