

NCDN (h2): 293T Lysate: sc-159762

BACKGROUND

NCDN (neurochondrin) is a 729 amino acid leucine-rich cytoplasmic protein belonging to the neurochondrin family that is involved in nervous system signal transduction and required for spatial learning. Known to act as a negative regulator of CaMKII (Ca²⁺-calmodulin-dependent protein kinase 2) phosphorylation, NCDN may also associate with MCH-1R (melanin-concentrating hormone receptor 1) to modulate its function, and is suggested to play a role in bone metabolism, neurite outgrowth and chondrocyte differentiation. Due to alternative splicing events, three NCDN isoforms are known to exist which are highly expressed in adult brain and spinal cord, and found at lower levels in fetal brain, ovary and testis. Localizing to somatic regions of neurons, NCDN is encoded by a gene that maps to human chromosome 1p34.3 and mouse chromosome 4 D2.2.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 31-39.
2. Mochizuki, R., et al. 1999. Molecular cloning and expression of human neurochondrin-1 and -2. Biochim. Biophys. Acta 1446: 397-402.
3. Mochizuki, R., et al. 2000. Corrigendum to "molecular cloning and expression of human neurochondrin-1 and -2". Biochim. Biophys. Acta 1490: 367-368.
4. Mochizuki, R., et al. 2003. Targeted disruption of the neurochondrin/norbin gene results in embryonic lethality. Biochem. Biophys. Res. Commun. 310: 1219-1226.
5. Dateki, M., et al. 2005. Neurochondrin negatively regulates CaMKII phosphorylation, and nervous system-specific gene disruption results in epileptic seizure. J. Biol. Chem. 280: 20503-20508.

CHROMOSOMAL LOCATION

Genetic locus: NCDN (human) mapping to 1p34.3.

PRODUCT

NCDN (h2): 293T Lysate represents a lysate of human NCDN transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

NCDN (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive NCDN antibodies. Recommended use: 10-20 µl per lane.

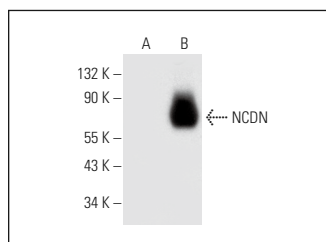
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NCDN (B-3): sc-398686 is recommended as a positive control antibody for Western Blot analysis of enhanced human NCDN expression in NCDN transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

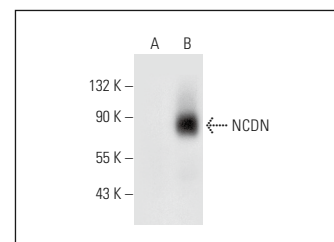
RECOMMENDED SUPPORT REAGENTS

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.

DATA



NCDN (B-3): sc-398686. Western blot analysis of NCDN expression in non-transfected: sc-117752 (A) and human NCDN transfected: sc-159762 (B) 293T whole cell lysates.



NCDN (F-12): sc-398588. Western blot analysis of NCDN expression in non-transfected: sc-117752 (A) and human NCDN transfected: sc-159762 (B) 293T whole cell lysates.

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.