

NDRG2 (h): 293 Lysate: sc-111033

BACKGROUND

The N-Myc downstream regulated gene (NDRG) family is comprised of four members, namely NDRG1, NDRG2, NDRG3 and NDRG4, all of which share 57-65% homology. NDRG2 (NDRG family member 2), also known as SYLD, is a 371 amino acid protein that localizes to both the cytoplasm and the perinuclear region in neurons. Expressed at high levels in heart, brain, dendritic cells, salivary gland and skeletal muscle, and at lower levels in liver and kidney, NDRG2 is thought to be involved in dendritic and neuronal cell differentiation and outgrowth. Additionally, NDRG2 expression is downregulated in a variety of carcinomas, including liver cancer, pancreatic cancer and meningioma, suggesting a possible role for NDRG2 in tumor suppression. NDRG2 is found in brain lesions of Alzheimer's disease (AD)-affected patients and is thought to be associated with the progression of AD. Five isoforms of NDRG2 exist due to alternative splicing events.

REFERENCES

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2. Choi, S.C., et al. 2003. Expression and regulation of NDRG2 (N-Myc downstream regulated gene 2) during the differentiation of dendritic cells. *FEBS Lett.* 553: 413-418.
3. Deng, Y., et al. 2003. N-Myc downstream-regulated gene 2 (NDRG2) inhibits glioblastoma cell proliferation. *Int. J. Cancer* 106: 342-347.
4. Mitchelmore, C., et al. 2004. NDRG2: a novel Alzheimer's disease associated protein. *Neurobiol. Dis.* 16: 48-58.
5. Hu, X.L., et al. 2004. NDRG2 expression and mutation in human liver and pancreatic cancers. *World J. Gastroenterol.* 10: 3518-3521.
6. Lusi, E.A., et al. 2005. Integrative genomic analysis identifies NDRG2 as a candidate tumor suppressor gene frequently inactivated in clinically aggressive meningioma. *Cancer Res.* 65: 7121-7126.
7. Lorentzen, A., et al. 2007. Expression of NDRG2 is downregulated in high-risk adenomas and colorectal carcinoma. *BMC Cancer* 7: 192.
8. Wang, L., et al. 2008. NDRG2 is a new HIF-1 target gene necessary for hypoxia-induced apoptosis in A549 cells. *Cell. Physiol. Biochem.* 21: 239-250.
9. Choi, S.C., et al. 2008. Expression of human NDRG2 by myeloid dendritic cells inhibits downregulation of activated leukocyte cell adhesion molecule (ALCAM) and contributes to maintenance of T cell stimulatory activity. *J. Leukoc. Biol.* 83: 89-98.

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.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: NDRG2 (human) mapping to 14q11.2.

PRODUCT

NDRG2 (h): 293 Lysate represents a lysate of human NDRG2 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

NDRG2 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive NDRG2 antibodies. Recommended use: 10-20 µl per lane.

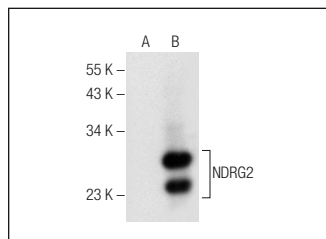
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

NDRG2 (B-10): sc-376202 is recommended as a positive control antibody for Western Blot analysis of enhanced human NDRG2 expression in NDRG2 transfected 293 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



NDRG2 (B-10): sc-376202. Western blot analysis of NDRG2 expression in non-transfected: sc-110760 (A) and human NDRG2 transfected: sc-111033 (B) 293 whole cell lysates.

RESEARCH USE

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