SANTA CRUZ BIOTECHNOLOGY, INC.

NDRG2 (N-20): sc-19467

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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 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.

CHROMOSOMAL LOCATION

Genetic locus: NDRG2 (human) mapping to 14q11.2; Ndrg2 (mouse) mapping to 14 C2.

SOURCE

NDRG2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NDRG2 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-19467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NDRG2 (N-20) is recommended for detection of NDRG2 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).

NDRG2 (N-20) is also recommended for detection of NDRG2 in additional species, including equine and canine.

Suitable for use as control antibody for NDRG2 siRNA (h): sc-40757, NDRG2 siRNA (m): sc-40758, NDRG2 shRNA Plasmid (h): sc-40757-SH, NDRG2 shRNA Plasmid (m): sc-40758-SH, NDRG2 shRNA (h) Lentiviral Particles: sc-40757-V and NDRG2 shRNA (m) Lentiviral Particles: sc-40758-V.

Molecular Weight of NDRG2: 41 kDa.

Positive Controls: NDRG2 (m): 293T Lysate: sc-121964, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

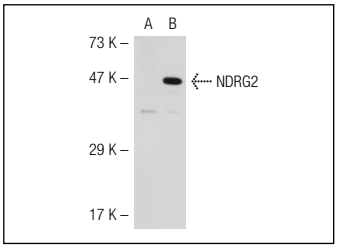
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

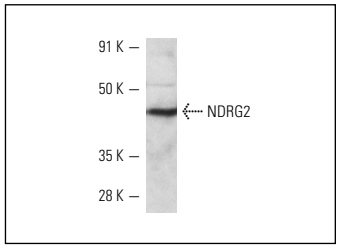
RESEARCH USE

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

DATA



NDRG2 (N-20): sc-19467. Western blot analysis of NDRG2 expression in non-transfected: sc-117752 (**A**) and mouse NDRG2 transfected: sc-121964 (**B**) 293T whole cell lysates.



NDRG2 (N-20): sc-19467. Western blot analysis of NDRG2 expression in mouse brain extract.

SELECT PRODUCT CITATIONS

1. Zhang, J., et al. 2006. The repression of human differentiation-related gene NDRG2 expression by Myc via Miz-1-dependent interaction with the NDRG2 core promoter. J. Biol. Chem. 281: 39159-39168.
2. Zhang, J., et al. 2007. The physical and functional interaction of NDRG2 with MSP58 in cells. Biochem. Biophys. Res. Commun. 352: 6-11.
3. Liu, N., et al. 2007. Promoter methylation, mutation, and genomic deletion are involved in the decreased NDRG2 expression levels in several cancer cell lines. Biochem. Biophys. Res. Commun. 358: 164-169.
4. Ma, J., et al. 2008. Expression of NDRG2 in clear cell renal cell carcinoma. Biol. Pharm. Bull. 31: 1316-1320.
5. Ventura-Holman, T., et al. 2011. The effect of oncoprotein v-erbA on thyroid hormone-regulated genes in hepatocytes and their potential role in hepatocellular carcinoma. Mol. Biol. Rep. 38: 1137-1144.

PROTOCOLS

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