

# NDRG2 (C-5): sc-365223

## 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.

## REFERENCES

1. Qu, X., et al. 2002. Characterization and expression of three novel differentiation-related genes belong to the human NDRG gene family. *Mol. Cell. Biochem.* 229: 35-44.
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.

## CHROMOSOMAL LOCATION

Genetic locus: NDRG2 (human) mapping to 14q11.2; NdrG2 (mouse) mapping to 14 C2.

## SOURCE

NDRG2 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 223-259 within an internal region of NDRG2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>3</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365223 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

NDRG2 (C-5) 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 (C-5) is also recommended for detection of NDRG2 in additional species, including porcine.

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.

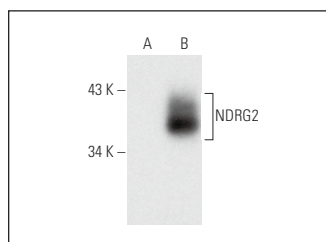
Molecular Weight of NDRG2: 41 kDa.

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

## 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



NDRG2 (C-5): sc-365223. Western blot analysis of NDRG2 expression in non-transfected: sc-117752 (A) and mouse NDRG2 transfected: sc-121964 (B) 293T whole cell lysates.

## 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.