

NDRG1 (H-60): sc-30040

BACKGROUND

The N-myc downstream regulated gene (NDRG) family is comprised of four members, NDRG1 (also designated Drg1, RTP, rit42, Cap43 and Ndr1), NDRG2, NDRG3 and NDRG4, which share 57-65% homology. The NDRG1 gene, which maps to human chromosome 8q24.22, is evolutionarily conserved and is similarly regulated in humans, mice and rats. Like NDRG2 and NDRG3, NDRG1 is ubiquitously expressed, but it is expressed most prominently in placental membranes and prostate, kidney, small intestine and ovary tissue. NDRG1 gene expression is induced by several compounds, including nickel, and produces a protein involved in stress responses, hormone responses, cell growth and differentiation. The gene encoding NDRG1 maps to human chromosome 20q11.23 and is predominantly expressed in testis, prostate and ovary, which suggests it may play a role in spermatogenesis.

REFERENCES

1. van Belzen, N., et al. 1997. A novel gene which is up-regulated during colon epithelial cell differentiation and down-regulated in colorectal neoplasms. *Lab. Invest.* 77: 85-92.
2. Kurdistani, S.K., et al. 1998. Inhibition of tumor cell growth by RTP/rit42 and its responsiveness to p53 and DNA damage. *Cancer Res.* 58: 4439-4444.

CHROMOSOMAL LOCATION

Genetic locus: NDRG1 (human) mapping to 8q24.22; Ndr1 (mouse) mapping to 15 D2.

SOURCE

NDRG1 (H-60) is a rabbit polyclonal antibody raised against amino acids 331-390 mapping at the C-terminus of NDRG1 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.

APPLICATIONS

NDRG1 (H-60) is recommended for detection of NDRG1 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).

Suitable for use as control antibody for NDRG1 siRNA (h): sc-36021, NDRG1 siRNA (m): sc-37267, NDRG1 shRNA Plasmid (h): sc-36021-SH, NDRG1 shRNA Plasmid (m): sc-37267-SH, NDRG1 shRNA (h) Lentiviral Particles: sc-36021-V and NDRG1 shRNA (m) Lentiviral Particles: sc-37267-V.

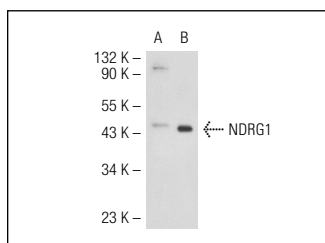
Molecular Weight of NDRG1: 43 kDa.

Positive Controls: Caco-2 cell lysate: sc-2262 or NDRG1 (h2): 293T Lysate: sc-172022.

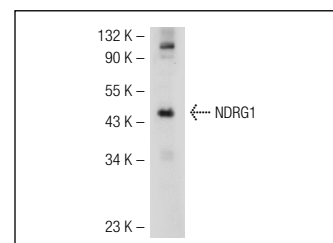
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NDRG1 (H-60): sc-30040. Western blot analysis of NDRG1 expression in non-transfected: sc-117752 (A) and human NDRG1 transfected: sc-172022 (B) 293T whole cell lysates.



NDRG1 (H-60): sc-30040. Western blot analysis of NDRG1 expression in 293T whole cell lysate.

SELECT PRODUCT CITATIONS

1. Domhan, S., et al. 2008. Molecular mechanisms of the antiangiogenic and antitumor effects of mycophenolic acid. *Mol. Cancer Ther.* 7: 1656-1668.
2. Jiang, K., et al. 2010. A novel molecular marker for early detection and evaluating prognosis of gastric cancer: N-myc downstream regulated gene-1 (NDRG1). *Scand. J. Gastroenterol.* 45: 898-908.
3. Ifere, G.O., et al. 2010. Cholesterol and phytosterols differentially regulate the expression of caveolin 1 and a downstream prostate cell growth-suppressor gene. *Cancer Epidemiol.* 34: 461-471.

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.



Try **NDRG1 (B-5): sc-398291** or **NDRG1 (A-5): sc-398823**, our highly recommended monoclonal alternatives to NDRG1 (H-60).