

Rabbit NDRG1 Polyclonal Antibody | anti-NDRG1 antibody

NDRG1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326624	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

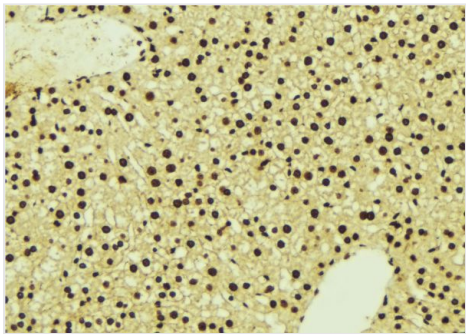
PRODUCT SYNONYMS

NDRG1; Polyclonal Antibody; NDRG1 Antibody; 42 kDa; Anti GC4; cap43; cmt4d; Differentiation related gene1 protein; Differentiation-related gene 1 protein; Drg 1; DRG-1; drg1; gc4; GC4 antibody; hmsnl; Human mRNA for RTP complete cds; N myc downstream regulated gene 1; N myc downstream regulated gene 1 protein; N-myc downstream-regulated gene 1 protein; Ndr 1; ndr1; NDRG 1; Ndrg1; NDRG1 protein; NDRG1_HUMAN; Nickel specific induction protein; Nickel specific induction protein Cap43; Nickel-specific induction protein Cap43; nmsl; Nmyc downstream regulated; Nmyc downstream regulated gene1; Nmyc downstream regulated gene1 protein; Protein NDRG1; Protein regulated by oxygen 1; Protein regulated by oxygen1; Proxy1; Reduced in tumor; Reducin; Reducing agents and tunicamycin responsive protein; Reducing agents and tunicamycin-responsive protein; Rit42; RTP; targ1; TDD5; tdds; Tunicamycin responsive protein; anti-NDRG1 antibody

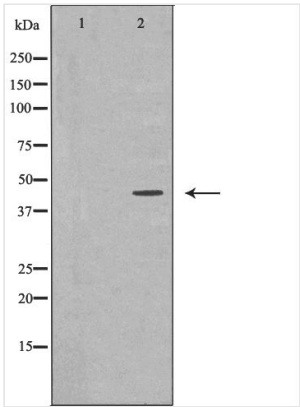
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	NDRG1 antibody detects endogenous levels of total NDRG1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	394
Applicable Applications for anti-NDRG1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human NDRG1
Subcellular Location	Cytoplasm. Nucleus. Cell Membrane. Whereas in prostate epithelium and placental chorion it is located in both the cytoplasm and the nucleus, nuclear staining is not observed in colon epithelium cells. Instead its localization changes from the cytoplasm to the plasma membrane during differentiation of colon carcinoma cell lines in vitro.
Tissue Specificity	Ubiquitous; expressed most prominently in placental membranes and prostate, kidney, small intestine, and ovary tissues. Also expressed in heart, brain, skeletal muscle, lung, liver and pancreas. Low levels in peripheral blood leukocytes and in tissues of the immune system. Expressed mainly in epithelial cells. Also found in Schwann cells of peripheral neurons. Reduced expression in adenocarcinomas compared to normal tissues. In colon, prostate and placental membranes, the cells that border the lumen show the highest expression.
Predicted Cross Reactivity	Rabbit, Dog, Xenopus
Similarity	Rabbit (100%), Dog (89%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA326624 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Hela whole cell lysates, using NDRG1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-NDRG1 antibody

Description: N-myc downstream-regulated gene 1 (NDRG1), also termed Cap43, Drg1, RTP/rit42, and Proxy-1, is a member of the NDRG family, which is composed of four members (NDRG1-4) that function in growth, differentiation, and cell survival (1-5). NDRG1 is ubiquitously expressed and highly responsive to a variety of stress signals including DNA damage (4), hypoxia (5), and elevated levels of nickel and calcium (2). Expression of NDRG1 is elevated in N-myc defective mice and is negatively regulated by N-and c-myc (1, 6). During DNA damage, NDRG1 is induced in a p53-dependent fashion and is necessary for p53-mediated apoptosis (4, 7). Research studies have shown that NDRG1 may also play a role in cancer progression by promoting differentiation, inhibiting growth, and modulating metastasis and angiogenesis (3, 4, 6, 8, 9). Nonsense mutation of the NDRG1 gene has been shown to cause hereditary motor and sensory neuropathy-Lom (HMSNL), which is supported by studies demonstrating the role of NDRG1 in maintaining myelin sheaths and axonal survival (10, 11). NDRG1 is up-regulated during mast cell maturation and its deletion leads to attenuated allergic responses (12). Both NDRG1 and NDRG2 are substrates of SGK1, although the precise physiological role of SGK1-mediated phosphorylation is not known (13). NDRG1 is phosphorylated by SGK1 at Thr328, Ser330, Thr346, Thr356, and Thr366. Phosphorylation by SGK1 primes NDRG1 for phosphorylation by GSK-3.

Function: Stress-responsive protein involved in hormone responses, cell growth, and differentiation. Acts as a tumor suppressor in many cell types. Necessary but not sufficient for p53/TP53-mediated caspase activation and apoptosis. Has a role in cell trafficking, notably of the Schwann cell, and is necessary for the maintenance and development of the peripheral nerve myelin sheath. Required for vesicular recycling of CDH1 and TF. May also function in lipid trafficking. Protects cells from spindle disruption damage. Functions in p53/TP53-dependent mitotic spindle checkpoint. Regulates microtubule dynamics and maintains euploidy.

Subunit Structure: Interacts with RAB4A (membrane-bound form); the interaction involves NDRG1 in vesicular recycling of CDH1.

Post-translational Modifications: Under stress conditions, phosphorylated in the C-terminal on many serine and threonine residues. Phosphorylated in vitro by PKA. Phosphorylation enhanced by increased intracellular cAMP levels. Homocysteine induces dephosphorylation. Phosphorylation by SGK1 is cell cycle dependent.

Similarity: Belongs to the NDRG family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	207028748
NCBI GeneID	10397
NCBI Accession #	NP_001128714.1
NCBI GenBank Nucleotide #	NM_001135242.1
UniProt Accession #	Q92597; O15207; Q6IBG2; Q9NYR6; Q9UK29; B3KR80; B7Z446
Molecular Weight	Observed: 43 kDa Predicted: 43 kDa

NCBI Official Full Name	protein NDRG1 isoform 1
NCBI Official Synonym Full Names	N-myc downstream regulated 1
NCBI Official Symbol	NDRG1
NCBI Official Synonym Symbols	GC4; RTP; DRG1; NDR1; NMSL; TDD5; CAP43; CMT4D; DRG-1; HMSNL; RIT42; TARG1; PROXY1
NCBI Protein Information	protein NDRG1
UniProt Protein Name	Protein NDRG1
UniProt Gene Name	NDRG1
UniProt Synonym Gene Names	CAP43; DRG1; RTP; DRG-1; RTP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ndrg1-antibody-immunohistochemistry-western-blot-elisa/326624>