

NDRG1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10384**Specification**

NDRG1 Antibody - Product Information

Application	WB
Primary Accession	Q92597
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	42835

NDRG1 Antibody - Additional Information**Gene ID** 10397

Positive Control	Western blot: 3T3 cell lysate
Application & Usage	Western blot: 1:200

Other Names

N-myc downstream regulated 1, CAP43, CMT4D, DRG1, GC4, HMSNL, NMSL, PROXY1, RIT42, RTP, TARG1, TDD5

Target/Specificity

NDRG1

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) of antibody in PBS, 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol, pH 7.2

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

NDRG1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NDRG1 Antibody - Protein Information

Name NDRG1**Synonyms** CAP43, DRG1, RTP**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.

Cellular Location

Cytoplasm, cytosol. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cell membrane Note=Mainly cytoplasmic but differentially localized to other regions Associates with the plasma membrane in intestinal epithelia and lactating mammary gland. Translocated to the nucleus in a p53/TP53- dependent manner. In prostate epithelium and placental chorion, located in both the cytoplasm and in the nucleus. No nuclear localization in colon epithelium cells. In intestinal mucosa, prostate and renal cortex, located predominantly adjacent to adherens junctions Cytoplasmic with granular staining in proximal tubular cells of the kidney and salivary gland ducts. Recruits to the membrane of recycling/sorting and late endosomes via binding to phosphatidylinositol 4-phosphate. Associates with microtubules Colocalizes with TUBG1 in the centrosome. Cytoplasmic location increased with hypoxia. Phosphorylated form found associated with centromeres during S-phase of mitosis and with the plasma membrane

Tissue Location

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.

NDRG1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NDRG1 Antibody - Images**NDRG1 Antibody - Background**

NDRG1 is a cytoplasmic protein that is involved in stress responses, hormone responses, cell growth, and differentiation. NDRG1 is one of 4 members of the NDRG α/β -hydrolase family. It is classified as a tumor suppressor and heavy metal-response protein. NDRG1's functions include cell-cycle regulation, cellular differentiation, apoptosis, hypoxia response and metal-ion sensing. It

is also essential for p53-mediated caspase activation and apoptosis. NDRG1 is ubiquitous; it is expressed most notably in placental membranes and prostate, kidney, small intestine, and ovary tissues. NDRG1 has reduced expression in adenocarcinomas compared to normal tissues. NDRG1 gene mutations are reported to be the cause for hereditary motor and sensory neuropathy-Lom (HMSNL), which is a severe autosomal recessive form of Charcot- Marie-Tooth (CMT) disease. In addition, decreased NDRG1 expression in glioma is linked to tumor progression. On the other hand, overexpression of NDRG1 is connected to malignant status of esophageal cancer. NDRG1 may also have a role in portal vein invasion and intrahepatic metastasis in human hepatocellular carcinoma.