10320 Camino Santa Fe, Suite G
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Anti-NDRG1 Antibody
Catalog # ABO10738

Specification

Anti-NDRG1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q92597
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Protein NDRG1(NDRG1) detection. Tested with WB, IHC-P in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NDRG1 Antibody - Additional Information

Gene ID 10397

Other Names
Protein NDRG1, Differentiation-related gene 1 protein, DRG-1, N-myc downstream-regulated gene 1 protein, Nickel-specific induction protein Cap43, Reducing agents and tunicamycin-responsive protein, RTP, Rit42, NDRG1, CAP43, DRG1, RTP

Calculated MW
42835 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Cytoplasm, cytosol. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Nucleus. Cell membrane. 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 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. .

Protein Name
Protein NDRG1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human NDRG1(194-214aa HLFGKEEMQSNVEVVHTYRQH).

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage **At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the NDRG family.

Anti-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
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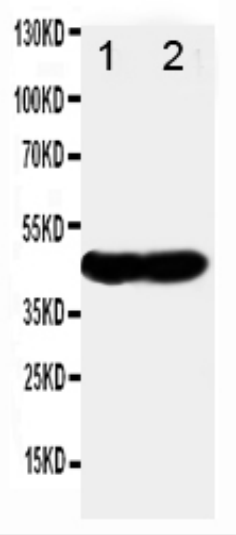
Anti-NDRG1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-NDRG1 Antibody - Images



Anti-NDRG1 antibody, ABO10738, Western blottingLane 1: SMMC Nucleus Cell LysateLane 2: SMMC Cytoplasm Cell Lysate

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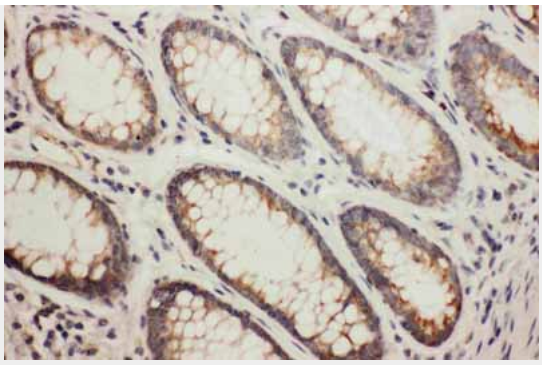

Anti-NDRG1 antibody, ABO10738, IHC(P)IHC(P): Human Rectal Cancer Tissue

Anti-NDRG1 Antibody - Background

Protein NDRG1 is a protein that in humans is encoded by the NDRG1 gene. It is a member of the N-myc downregulated gene family which belong to the alpha/beta hydrolase superfamily. The NDRG1 gene is mapped to chromosome 8q24. It has got a deduced 394 amino acid protein with a molecular mass of 43kD. NDRG1 is expressed in the cytoplasm and basolateral membranes of gut lumen surface epithelial cells. The protein appears to play a vital role in growth arrest and cell differentiation.