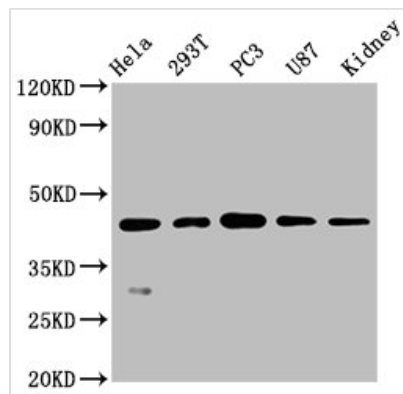




NDRG1 Recombinant Monoclonal Antibody

Product Code	CSB-RA835678A0HU
Abbreviation	Protein NDRG1
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q92597
Immunogen	A synthesized peptide derived from human NDRG1
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	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
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience
Gene Names	NDRG1
Clone No.	4C8
Image	



Western Blot

Positive WB detected in: HeLa whole cell lysate, 293T whole cell lysate, PC3 whole cell lysate, U87 whole cell lysate, Mouse kidney tissue

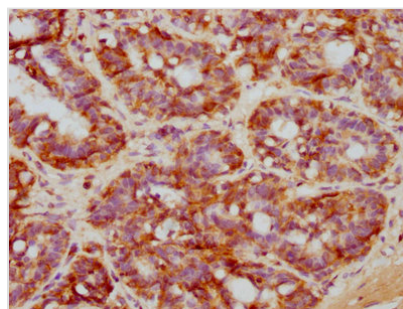
All lanes: NDRG1 antibody at 0.7 μ g/ml

Secondary

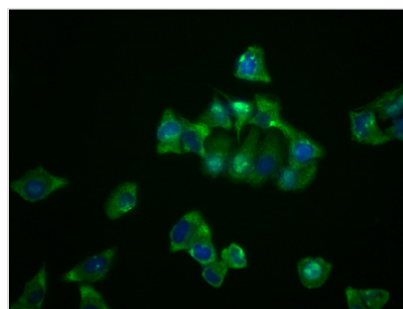
Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 43, 36, 34 KDa

Observed band size: 43 KDa



IHC image of CSB-RA835678A0HU diluted at 1:71.6666666666667 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4 $^{\circ}$ C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunofluorescence staining of HeLa cells with CSB-RA835678A0HU at 1:23, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4 $^{\circ}$ C. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

The recombinant NDRG1 antibody is a monoclonal antibody made in vitro using the NDRG1 antibody genes that are typically expressed from a plasmid in a stable mammalian cell line. The genes coding for the NDRG1 antibody will ultimately assemble into a fully functional antibody after translation. The synthesized antibody is the recombinant antibody against NDRG1. It underwent purification using affinity-chromatography. This recombinant NDRG1 antibody is suitable for use in the ELISA, WB, IHC, IF to detect the NDRG1 protein from Human, Mouse.

NDRG1 as a prognostic factor in breast cancer remains controversial, as it continues to be cited as both a biomarker of negative prognosis and as a metastasis suppressor. Although its function is poorly defined, NDRG1 is a direct transcriptional target of hypoxia inducible factor 1 α (Hif1 α), Hif2 α , and X-box binding protein 1 (XBP1). NDRG1 protein expression has been associated with high uptake of 18-fluorodeoxyglucose and estrogen receptor (ER)-negative breast cancers in vivo, but rather than a role in glycolysis, physical interactors



and physiological consequences of NDRG1 malfunction suggest a poorly defined role related to lipid biology in cancer. NDRG1 is expressed in a Warburg-like metabolic gene expression program common to many solid tumors, including breast cancer. Several lines of evidence show that NDRG1 performs an important pro-survival function in regulating the fate of lipids in breast cancer cells. Increased NDRG1 expression suppresses angiogenesis via PI3K/AKT pathway in human placental cells.