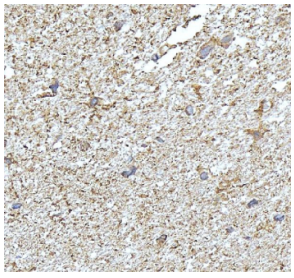
NDRG2 Antibody / N myc downstream regulated gene 2 (R31267)

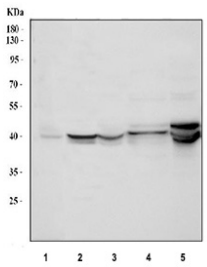
Catalog No.	Formulation	Size
R31267	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9UN36
Localization	Cytoplasm, nucleus
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This NDRG2 antibody is available for research use only.



Immunohistochemical staining of FFPE human brain tissue with NDRG2 antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot analysis using NDRG2 antibody. Lane 1: human HepG2 whole cell lysate; Lane 2: rat brain tissue lysate; Lane 3: rat heart tissue lysate; Lane 4: mouse brain tissue lysate; Lane 5: mouse heart tissue lysate. NDRG2 antibody detects a band at approximately 41 kDa, consistent with the predicted molecular weight of N-myc downstream regulated gene 2. A closely spaced doublet can be observed, likely reflecting post-translationally modified forms of NDRG2.

Description

NDRG2 antibody targets N myc downstream regulated gene 2, encoded by the NDRG2 gene. NDRG2 is a cytoplasmic protein belonging to the NDRG family, which is involved in regulation of cellular differentiation, proliferation, and stress-responsive signaling. The protein is predominantly localized to the cytoplasm, with reported association to intracellular membranes depending on cell type and physiological context. NDRG2 is considered a differentiation-related protein and is frequently linked to regulation of growth and cellular homeostasis.

Functionally, N myc downstream regulated gene 2 has been shown to influence signaling pathways associated with cell cycle control, differentiation, and apoptosis. NDRG2 expression is regulated by oncogenic and stress-related pathways, and its activity has been connected to modulation of MAPK and other growth-associated signaling cascades. Through these mechanisms, NDRG2 is thought to act as a negative regulator of uncontrolled cell proliferation. An NDRG2 antibody supports studies focused on differentiation-associated signaling and cellular stress responses.

NDRG2 is expressed in a variety of tissues, with notable expression in brain, heart, and immune-related cells. Its expression pattern often correlates with differentiated or quiescent cellular states rather than highly proliferative conditions. Subcellular localization and expression levels of NDRG2 can vary in response to developmental cues and environmental stress, indicating a role in adaptive cellular regulation.

From a disease-relevance perspective, NDRG2 has been extensively studied in cancer biology, where it is frequently described as a tumor suppressor-associated protein. Reduced NDRG2 expression has been reported in several malignancies and has been linked to tumor progression, invasion, and poor prognosis. Altered NDRG2 regulation has also been investigated in neurological and cardiovascular contexts, reflecting its broader role in tissue homeostasis and differentiation-related processes.

At the molecular level, N myc downstream regulated gene 2 lacks intrinsic enzymatic activity but contains conserved regions that mediate protein-protein interactions and regulatory functions. Post-translational modifications, including phosphorylation, can influence its apparent migration on SDS-PAGE and functional state without altering the primary amino acid sequence. NDRG2 antibody reagents support research applications focused on differentiation biology, growth regulation, and disease-associated signaling pathways, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the NDRG2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the C-terminus of human N myc downstream regulated gene 2 (ELIQKYRNIITHAPNLDNI) was used as the immunogen for this NDRG2 antibody.

Storage

After reconstitution, the NDRG2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.