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#5667

## NDRG2 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

<b>Applications:</b> W	<b>Reactivity:</b> H M R	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 45	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q9UN36	<b>Entrez-Gene Id:</b> 57447
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### Product Usage Information

#### Application

Western Blotting

#### Dilution

1:1000

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

NDRG2 Antibody recognizes endogenous levels of total NDRG2 protein.

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys25 of human NDRG2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

The NDRG (N-Myc downstream-regulated gene) family consisting of NDRG1, NDRG2, NDRG3, and NDRG4 are structurally related proteins with roles in cell proliferation, differentiation, apoptosis, stress responses, and cell migration/metastasis (1-3). NDRG1 was originally identified as a protein that was upregulated in N-Myc knockout mice (1). Proteins in the NDRG family, particularly NDRG1 and NDRG2, have been reported to be down-regulated in various cancer tissues and have been suggested to function as a tumor suppressors (4,5). Expression of NDRG1 and NDRG2 is up-regulated by p53 and HIF-1, and contributes to apoptosis driven by those pathways (6-11). NDRG1 and NDRG2 are also associated with pathological conditions in the nervous system. 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 (12, 13). Elevated expression of NDRG2 has been observed with Alzheimer's disease (14). Both NDRG1 and NDRG2 are phosphorylated at multiple sites by Akt and/or SGK1, although the precise physiological role of this phosphorylation is not known (15, 16).

### Background References

1. Shimono, A. et al. (1999) *Mech Dev* 83, 39-52.
2. Qu, X. et al. (2002) *Mol Cell Biochem* 229, 35-44.
3. Zhou, R.H. et al. (2001) *Genomics* 73, 86-97.
4. Yao, L. et al. (2008) *Acta Biochim Biophys Sin (Shanghai)* 40, 625-35.
5. Ellen, T.P. et al. (2008) *Carcinogenesis* 29, 2-8.
6. Kurdistan, S.K. et al. (1998) *Cancer Res* 58, 4439-44.
7. Park, H. et al. (2000) *Biochem Biophys Res Commun* 276, 321-8.
8. Stein, S. et al. (2004) *J Biol Chem* 279, 48930-40.
9. Cangul, H. (2004) *BMC Genet* 5, 27.
10. Wang, L. et al. (2008) *Cell Physiol Biochem* 21, 239-50.
11. Liu, N. et al. (2008) *Nucleic Acids Res* 36, 5335-49.
12. Kalaydjieva, L. et al. (2000) *Am J Hum Genet* 67, 47-58.
13. Okuda, T. et al. (2004) *Mol Cell Biol* 24, 3949-56.
14. Mitchelmore, C. et al. (2004) *Neurobiol Dis* 16, 48-58.
15. Murray, J.T. et al. (2004) *Biochem J* 384, 477-88.
16. Burchfield, J.G. et al. (2004) *J Biol Chem* 279, 18623-32.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

### Applications Key

**W:** Western Blotting

### Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat

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