

Recombinant Human NDRG1 Protein, His-tagged

Cat. No. NDRG1-008H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human NDRG1 Protein with His tag was expressed in E. coli.
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Species	Human
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Source	E.coli
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Description

N-myc downstream-regulated gene 1 (NDRG1), also termed Cap43, Drg1, RTP/rit42, and Proxy-1, is a member of the NDRG family, which is composed of four members (NDRG1-4) that function in growth, differentiation, and cell survival. NDRG1 is ubiquitously expressed and highly responsive to a variety of stress signals, including DNA damage, hypoxia, and elevated levels of nickel and calcium. Expression of NDRG1 is elevated in N-myc defective mice and is negatively regulated by N- and c-myc. During DNA damage, NDRG1 is induced in a p53-dependent fashion and is necessary for p53-mediated apoptosis. Research studies have shown that NDRG1 may also play a role in cancer progression by promoting differentiation, inhibiting growth, and modulating metastasis and angiogenesis. 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. NDRG1 is upregulated during mast cell maturation and its deletion leads to attenuated allergic responses. Both NDRG1 and NDRG2 are substrates of SGK1, although the precise physiological role of SGK1-mediated phosphorylation is not known. NDRG1 is phosphorylated by SGK1 at Thr328, Ser330, Thr346, Thr356, and Thr366. Phosphorylation by SGK1 primes NDRG1 for phosphorylation by GSK-3.

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Molecular Mass	~43 kDa
AA Sequence	HMSREMQDVDLAEVKPLVEKGETITGLLQEFDVQEQDIETLHGSHVHTLCGTPKGN RPVILTYHDIGMNHKTCYNPLFNIEDMQEITQHFAVCHVDAPGQQDGAASFPAGYM YPSMDQLAEMLPGLVQQFGLKSIIGMGTGAGAYILTRFALNNPEMVEGLVLINVNPC AEGWMDWAASKISGWTQALPDMVVSHLFGKEEMQSNVEVVHTYRQHIVNDMNPG NLHLFINAYNSRRDLEIERPMPGTHTVTLQCPALLVVGDS SPAVD AVECN SKLDPT KTTLLKMADCGGLPQISQPAKLAEAFKYFVQGMGYMPSASMTLRMSRTASGSSVT SLDGTRSRSH TSEGTRSRSH TSEGTRSRSH TSEGAHL DITPNSGAAGNSAGPKSM EVSCLE
Purity	Transferred into competent cells and the supernatant was purified by NI column affinity chromatography and the purity is > 85% (by SDS-PAGE).
Notes	For research use only, not for use in diagnostic procedure.
Storage	Store at 4 centigrade short term. Aliquot and store at -20 centigrade long term. Avoid freeze-thaw cycles.
Storage Buffer	PBS, pH7.4
GENE INFORMATION	
Gene Name	NDRG1 N-myc downstream regulated 1 [Homo sapiens (human)]
Official Symbol	NDRG1
Synonyms	NDRG1; N-myc downstream regulated 1; CAP43; protein NDRG1; DRG1; NDR1; RTP; TDD5; DRG-1; protein regulated by oxygen-1; tunicamycin-responsive protein; differentiation-related gene 1 protein; nickel-specific induction protein Cap43; N-myc downstream-regulated gene 1 protein; reducing agents and tunicamycin-responsive

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protein; GC4; NMSL; CMT4D; HMSNL; RIT42; TARG1; PROXY1;

Gene ID 10397

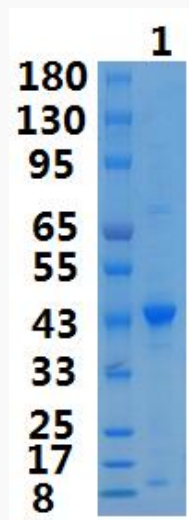
mRNA Refseq NM_001135242

Protein Refseq NP_001128714

MIM 605262

UniProt ID Q92597

SDS-PAGE



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