9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

NDRG1 Human

N-Myc Downstream Regulated 1 Human Recombinant
RCP1475

Product Overview

Name	NDRG1 Human
Description	
N-Myc Downstream Regulated 1 Human Recombinant	
Accession (Primary)	Q92597
Synonyms	
Protein NDRG1, N-myc downstream-regulated gene 1 protein, Differentiation-related gene 1 protein, Reducing agents and tunicamycin-responsive protein, Nickel-specific induction protein Cap43, DRG-1, RTP, Rit42, NDRG1, CAP43, DRG1, GC4, NDR1, NMSL, TDD5, CMT4D, HMSNL, TARG1, PROXY1.	
Introduction	
NDRG1 is a cytoplasmic protein that is involved in stress responses, hormone responses, cell growth, and differentiation. NDRG1 is one of 4 members of the NDRG ?/?-hydrolase family. NDRG1 is classified in databases as a tumor suppressor and heavy metal-response protein. NDRG1′s functions include cell-cycle regulation, cellular differentiation, apoptosis, hypoxia response and metal-ion sensing. NDRG1 is also essential for p53-mediated caspase activation and apoptosis. The NDRG1 is a Rab4a effector that is involved in vesicular recycling of E-cadherin. NDRG1 is ubiquitous; it is expressed most notably in placental membranes and prostate, kidney, small intestine, and ovary tissues. NDRG1 has reduced expression in adenocarcinomas compared to normal tissues. NDRG1 gene mutations are reported to be the cause for hereditary motor and sensory neuropathy-Lom (HMSNL), which is a severe autosomal recessive form of Charcot- Marie-Tooth (CMT) disease. In addition, decreased NDRG1 expression in glioma is linked to tumor progression. On the other hand, overexpression of NDRG1 is connected to malignant status of esophageal cancer. NDRG1 may also have a role in portal vein invasion and intrahepatic metastasis in human hepatocellular carcinoma.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered colorless solution.	
Formulation	
The NDRG1 solution contains 20mM Tris-HCl buffer (pH8.0), 0.1mM PMSF and 10% Glycerol.	
Stability	

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Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino acid sequence

MSREMQDVDL AEVKPLVEKG ETITGLLQEF DVQEQDIETL HGSVHVTLCG TPKGNRPVIL TYHDIGMNHK TCYNPLFNYE DMQEITQHFA VCHVDAPGQQ DGAASFPAGY MYPSMDQLAE MLPGVLQQFG LKSIIGMGTG AGAYILTRFA LNNPEMVEGL VLINVNPCAE GWMDWAASKI SGWTQALPDM VVSHLFGKEE MQSNVEVVHT YRQHIVNDMN PGNLHLFINA YNSRRDLEIE RPMPGTHTVT LQCPALLVVG DSSPAVDAVV ECNSKLDPTK TTLLKMADCG GLPQISQPAK LAEAFKYFVQ GMGYMPSASM TRLMRSRTAS GSSVTSLDGT RSRSHTSEGT RSRSHTSEGT RSRSHTSEGA HLDITPNSGA AGNSAGPKSM EVSC LEHHHH HH

Biological Activity

Measured in a cell proliferation assay using MCF7 cell. The ED50 for this effect is 0.5 - 1.5ng/ml, corresponding to a Specific Activity of 666,000 -2,000,000 IU/mg.

Precautions

NDRG1 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (Q92597)