

32-4306: Recombinant Human N-Myc Downstream Regulated 1

Alternative Name : 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, TDD

Description

Source : Escherichia Coli. NDRG1 Human Recombinant fused with 8 amino acid His tag at C-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 402 amino acids (1-394 a.a.) and having a molecular mass of 43.9 kDa. The NDRG1 is purified by proprietary chromatographic techniques. 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.

Product Info

Amount : 50 µg
Purification : Greater than 95.0% as determined by SDS-PAGE.
Content : The NDRG1 solution contains 20mM Tris-HCl buffer (pH8.0), 0.1mM PMSF and 10% Glycerol.
Storage condition : 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.
Amino Acid : MSREMQDVDL AEVKPLVEKG ETITGLLQEF DVQEQDIETL HGSVHVTLCG TPKGNNRPVIL
TYHDIGMNHK TCYNPLFNYE DMQEITQHFAVCHVDAPGQQ DGAASFPAGY MYPSMDQLAE
MLPGVLQQFG LKSIIGMG TG AGAYILTRFA LNNPEMVEGL VLINVNPCAE GWMDWAASKI
SGWTQALPDM VVSHLFGKEE MQSNVEVVHT YRQHIVNDMN PGNLHLFINA YNSRRDLEIE
RPMPGTHTVT LQCPALLVVG DSSPAVDAVV ECNSKLDPTK TTLKMACDCG GLPQISQPAK
LAEAFKYFVQ GMGYMPSASM TRLMRSRTAS GSSVTSLDGT RSRSHSEGT RSRSHSEGT
RSRSHSEGA HLDITPNSGA AGNSAGPKSM EVSCLEHHHH HH

Application Note

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.

