Human Recombinant NDRG1

CATALOG #: 6391-100 100 µg

ALTERNATE NAMES: N-myc downstream regulated 1, CAP43, CMT4D, DRG1, GC4, HMSNL, NMSL, PROXY1, RIT42, RTP, TARG1, TDD5 .

SOURCE: E.Coli

PURITY: > 95% by SDS - PAGE

MOL. WEIGHT: 43.9 kDa (402 aa, 1-394 aa + CT His Tag)

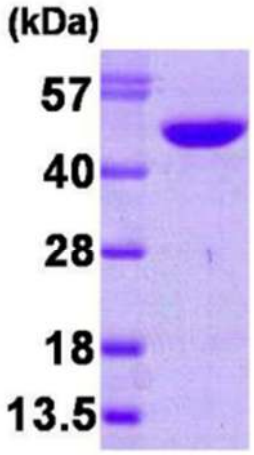
FORMULATION: 1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 0.1 mM PMSF and 10% glycerol.

STORAGE CONDITIONS:
Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

DESCRIPTION:
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 α/β-hydrolase family. It is classified 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. It is also essential for p53-mediated caspase activation and apoptosis. 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.

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 EVSCLEHHHH HH

BIOLOGICAL ACTIVITY:
The ED_{50} for this effect is 0.5 - 1.5 ng/ml. Measured in a cell proliferation assay using MCF7 cell.



15% SDS-PAGE (3ug)
Human Recombinant NDRG1

RELATED PRODUCTS:

- Myc-Tag Antibody **(Cat. No. 3995-100)**
- Myc-Tag Blocking Peptide **(Cat. No. 3995BP-50)**
- Phospho c-Myc Antibody **(Cat. No. 3501-100)**

FOR RESEARCH USE ONLY! Not to be used in humans.