

## Product datasheet for **RC225609**

### **NDRG1 (NM\_001135242) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NDRG1 (NM_001135242) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NDRG1
Synonyms:	CAP43; CMT4D; DRG-1; DRG1; GC4; HMSNL; NDR1; NMSL; PROXY1; RIT42; RTP; TARG1; TDD5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225609 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTCGGGAGATGCAGGATGTAGACCTCGCTGAGGTGAAGCCTTTGGTGGAGAAAGGGGAGACCATCA  
CCGGCCTCCTGCAAGAGTTTGTGTCCAGGAGCAGGACATCGAGACTTTACATGGCTCTGTTACGTCAC  
GCTGTGTGGGACTCCCAAGGAAACCGCCTGTCATCCTCACCTACCATGACATCGGCATGAACCACAAA  
ACCTGCTACAACCCCTCTTCAACTACGAGGACATGCAGGAGATCACCCAGCACTTTGCCGTCTGCCACG  
TGGACGCCCTGGCCAGCAGGACGGCGCAGCCTCCTTCCCGCAGGGTACATGTACCCCTCCATGGATCA  
GCTGGCTGAAATGCTTCCTGGAGTCCTAACAGTTTGGGCTGAAAAGCATTATTGGCATGGGAACAGGA  
GCAGGGCGCTACATCCTAACTCGATTTGCTCTAAACAACCCTGAGATGGTGGAGGGCCTTGCTCTTATCA  
ACGTGAACCCCTTGTCGGAAGGCTGGATGGACTGGGCCGCTCCAAGATCTCAGGATGGACCCAAGCTCT  
GCCGGACATGGTGGTGTCCCACCTTTTGGGAAGGAAGAAATGCAGAGTAACGTGGAAGTGGTCCACACC  
TACCGCCAGCACATTGTGAATGACATGAACCCGGCAACCTGCACCTGTTCAATGCCTACAACAGCC  
GGCGGACCTGGAGATTGAGCGACCAATGCCGGAAACCCACACAGTCACCTGCAGTGCCTGCTCTGTT  
GGTGGTTGGGGACAGCTCGCCTGCAGTGGATGCCGTGGTGGAGTGCAACTCAAAATTGGACCAACAAG  
ACCACTCCTCAAGATGGCGGACTGTGGCGGCTCCCGCAGATCTCCAGCCGCAAGCTCGCTGAGG  
CCTTCAAGTACTTCGTGCAGGGCATGGATACATGCCCTCGGCTAGCATGACCCGCTGATGCGGTCCCG  
CACAGCCTCTGGTTCCAGCGTCACTTCTCTGGATGGCACCCGAGCCGCTCCACACCAGCGAGGGCACC  
CGAAGCCGCTCCACACCAGCGAGGGCACCCGAGCCGCTCGCACACCAGCGAGGGGGCCACCTGGACA  
TCACCCCAACTCGGGTCTGCTGGGAACAGCGCCGGGCCAAGTCCATGGAGGTCTCTGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC225609 protein sequence  
Red=Cloning site Green=Tags(s)

MSREMQDVLAEVKPLVEKGETITGLLQEFDVQEQDIETLHGSVHVTLGCTPKGNRPVILTYHDIGMNHK  
 TCYNPLFNYEDMQEITQHFVAVCHVDAPGQQDGAASFAGYMYPSMDQLAEMLPGLVQQFGLKSIIGMGTG  
 AGAYILTRFALNNPEMVEGLVFINVNPCAEGWMDWAASKISGWTQALPDMVVSHLFGKEEMQSNVEVVHT  
 YRQHIVNDMNPGLHLFINAYNSRRDLEIERPMPGTHVTQLQCPALLVVDSSPAVDVAVVECNKSLDPTK  
 TLLKMDACGGLPQISQPAKLAFAFKYFVQGMGYMPSASMTLRMRSRASGSSVTSLDGTRRSRSHSEGT  
 RSRSHSEGTRRSRSHSEGAHLDITPNSGAAGNSAGPKSMEVSC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6150\\_b03.zip](https://cdn.origene.com/chromatograms/mk6150_b03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001135242

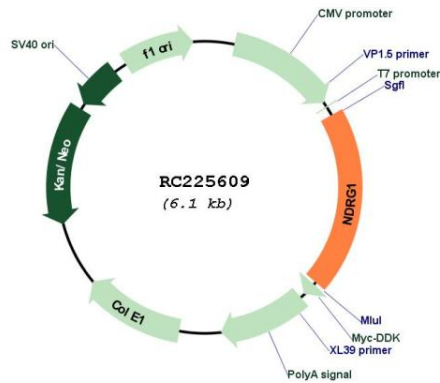
**ORF Size:** 1182 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

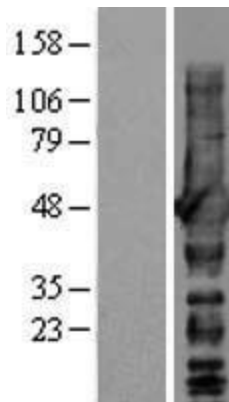
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001135242.2</a>
<b>RefSeq Size:</b>	3520 bp
<b>RefSeq ORF:</b>	1185 bp
<b>Locus ID:</b>	10397
<b>UniProt ID:</b>	<a href="#">Q92597</a>
<b>Cytogenetics:</b>	8q24.22
<b>MW:</b>	42.8 kDa
<b>Gene Summary:</b>	This gene is a member of the N-myc downregulated gene family which belongs to the alpha/beta hydrolase superfamily. The protein encoded by this gene is a cytoplasmic protein involved in stress responses, hormone responses, cell growth, and differentiation. The encoded protein is necessary for p53-mediated caspase activation and apoptosis. Mutations in this gene are a cause of Charcot-Marie-Tooth disease type 4D, and expression of this gene may be a prognostic indicator for several types of cancer. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, May 2012]

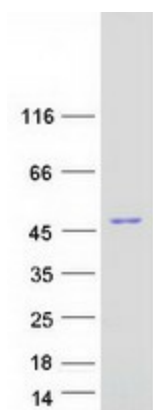
Product images:



Circular map for RC225609



Western blot validation of overexpression lysate (Cat# [LY427604]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225609 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDRG1 protein (Cat# [TP325609]). The protein was produced from HEK293T cells transfected with NDRG1 cDNA clone (Cat# RC225609) using MegaTran 2.0 (Cat# [TT210002]).