

Product datasheet for RC224847

NRDE2 (NM_017970) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NRDE2 (NM_017970) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NRDE2
Synonyms:	C14orf102
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224847 representing NM_017970 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGTTCCAGCCTTTGCGGGCTTAGTGAGGCTCCCGATGGCGGGAGCTCCAGGAAAGAGTTAG
ACTGGCTGAGCAACCAAGCTTTTGTGTTGGATCCATAACGTCCCTGAGCCAACAACTGAAGCAGCTCC
AGCCCATGTTTCTGAAGGTTACCGCTGACAAGGAGTCACTGAAATCAGAGTCTTCAGATGAAAGTGAC
ACTAACAAAAAGCTCAAACAACAAGTAGAAAAAGAAGAAAGAGAAAAAGAAAAAGGAAGCATCAGC
ATCATAAGAAAAACAAGAGGAAGCATGGGCCGTCGAGTAGCAGCAGGTCTGAGACAGACACCGATTCTGA
AAAGGACAAACCTTCCAGAGGCGTTGGAGGCAGTAAAAAGGAATCTGAGGAACCGAATCAAGGAAATAAT
GCTGCAGCTGATACTGGACATCGTTTTGTTGGCTTGAGGACATTCAGGCTGTGACGGGAGAAAACCTTCA
GAACAGATAAGAAACAGATCCTGCAACTGGGAGTACAAGTCTCTACCGAGGGGATATAGCAAGATA
CAAGAGGAAAGGAGACTCCTGCCTTGGCATTAAACCCTAAGAAGCAGTGCATATCTTGGGAAGGGACTTCC
ACAGAGAAGAAGCATTACGCAAGCAGGTTGAACGCTATTTACTAAGAAGAGTGTGGGATTAATGAACA
GGACTTGAAGATGCGGCTCCTGTTACAACCTGGTTGAATCCTCTGGGGATTTATGATCAGTCAACCACA
CATTGGCTACAAGGACAGGGTCCAGAGCAGGAATCAAAGCAGCCAGCCAGCAGCCAGACAGCGGACA
GTGCGGCTCTCAAGCCAAGGTGGAGGAGTTAACAGGAGGTGCGGGAGAATCCTCGGGATACGCAGCT
GTGGATGGCATTGTTGCTTTTCAGGACAGGTGATGAAAAGTCTGGCCTGTATGCCATCGAGGAAGGA
GAGCAGGAAAAGCGAAAGAGTCCCTGAAGCTCATTCTGGAGAAGAAGCTGGCCATTCTGGAGCGGGCCA
TTGAGAGCAACCAGAGCAGTGTGGATCTGAAACTGGCCAAGCTGAAGCTCTGCACAGAGTTCTGGGAGCC
CTCCACTCTGGTCAAAGAGTGGCAGAACTGATATTTTTGCATCCCAATAATACAGCCCTTTGGCAGAAA
TACCTTTATTTTGGCAGAGCCAGTTTAGTACCTTTTCGATATCAAAAATTCACAGTCTTTATGGAAAAT
GCTTGAGCACTTTGTCTGCTGTTAAGGACGGCAGCATCTATCTCACCTGCGTTGCCTGGCAGGGAAGA
GGCCATGTTGCACTCTTCTTACGAGTGCCACTTTCTGCGGCAGGCTGCCACTCTGAGAAGGCCATC



TCATTGTTCCAGGCCATGGTGGACTTCACCTTCTTCAAACCCGACAGCGTGAAAGATCTGCCTACCAAAG
GACAGGTGGAATCTTTGAACCTTTTGGGACAGTGGAGAGCCCCGGGCTGGGGAGAAGGGAGCCCCGAGG
CTGGAAGGCGTGGATGCACCAGCAGGAACGAGGTGGTGGGTGGTCAACCCAGATGAGGATGACGAT
GAACCAGAAGAGGATGACCAGGAAATAAAGATAAGACTCTGCCAGGTGGCAGATCTGGCTTGTGCTG
AGCGTTCCCGTGACCAGAGGCACTGGCGGCCCTGGCGCCTGATAAGACCAAGAAGCAAACCGAGGAAGA
CTGTGAGGATCCCAGAGACAGGTGTTGTTGATGATATTGGGCAATCTTTGATCAGACTTCCAGCCAT
GATCTTCAGTCCAGCTGGTGGAGGCCTTCTGCAGTCTTGGGTGTCCTTCTGGCTTTACTCCTCCAG
CCTCCTGTCTTTATCTGGCCATGGATGAGAACAGCATCTTTGATAATGGACTTTATGATGAAAAGCCCTT
GACTTTTTTCAACCCCTTTGTTTTCTGGGCTAGCTGTGTTGGCCCATGGATAGTTGGGCTATCCTCGC
TGGACCAGGGTCAAGCCGAGAGGGCGAGGAGTTCATCCGCAATGTCTTCCACCTTGTGATGCCTTTAT
TTTCAGGCAAAGAGAAGTCCCAGCTCTGCTTCTCCTGGTTACAGTATGAGATTGCAAAGGTCATTTGGT
CCTGCACACTAAAAACAAGAAGAGATTAAGTCTCAAGGGAAGAAGTCAAAAAACTAGCCAAGAATCTC
CTTAAGGAGCCAGAAAAGTCAACAACCTTTGCCTGTGGAAGCAGTATGCACATCTGGAGTGGTTGCTT
GCAACACGGAGGATGCCAGAAAAGTTTTGACACAGCACTGGCATGGCAGGAAGCAGAGAAGTAAAGA
CTCTGACCTCTGTGAGCTCAGTCTGCTCTATGCTGAGCTGGAGGTGGAGCTGTCGCCAGAAGTGAAGG
GCTGCCACAGCTCGAGCTGTTACATATTAACCAAGCTGACTGAGAGCAGCCCCTATGGGCCCTACTG
GACAGGTGTTGGCTGTTACATTTTAAAGCGCGAAAAGGCTTATGAGCACGCACTGCAGGACTGTTGGG
TGACAGCTGTGTCTCAAATCCAGCTCCCACCGATTCTGTAGCCGCTAATTAGCCTGGTAAATGCTTC
ATGCTCTTCCAGTATTTGACCATAGGGATTGATGCTGCTGTGCAGATATACGAACAGGTGTTTGCAAAC
TGAACAGTTCTGTTTTCCAGAAGGCTCTGGCGAGGGGGACAGTCCAGCTCCCAGAGTTGGACCAGTGT
TCTCGAAGCCATCACACTGATGCACACGAGCCTGCTGAGATTCCACATGAAAGTGAGTGTAAACCGCTG
GCCCCCTGCGAGAGGCACTCTCACAGGCTTTAAAGTTGTATCCAGGCAACCAGGTTCTTTGGAGTCT
ATGTACAGATTGAGAATAAGTCCCACAGTCCAGCAAAACCAGGAGATTTTTTGACACAATCACCAGGTC
TGCCAAAACCTTGGAGCCTTGGTTGTTTGAATTGAAGCTGAGAAACTGAGGAAGAGACTGGTGGAAACT
GTCCAGAGGTTAGACGGTAGAGAGATCCACGCCAATTCTGAGACCGCTAATGCATCGGATCCAAG
CCCTGTTTGAAAATGCCATGCGCAGCGACAGTGGCAGCCAGTGGCCCTTGTGTTGGAGGATGATTTGAA
CTTTCTGGTTTCTTAGGAAATAAAGAAAGAAGCAAAGGTGATTCTACAAAGCACTTCAAGATTGCCCT
TGGGCAAAGGTGTTGTACCTGGACGCCGTGGAGTATTTCCCGATGAGATGCAGGAGATCCTGGACCTGA
TGACTGAGAAGGAGCTCCGGGTGCGCTGCCGCTGGAGGAGCTGGAGCTGCTGCTGGAGGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

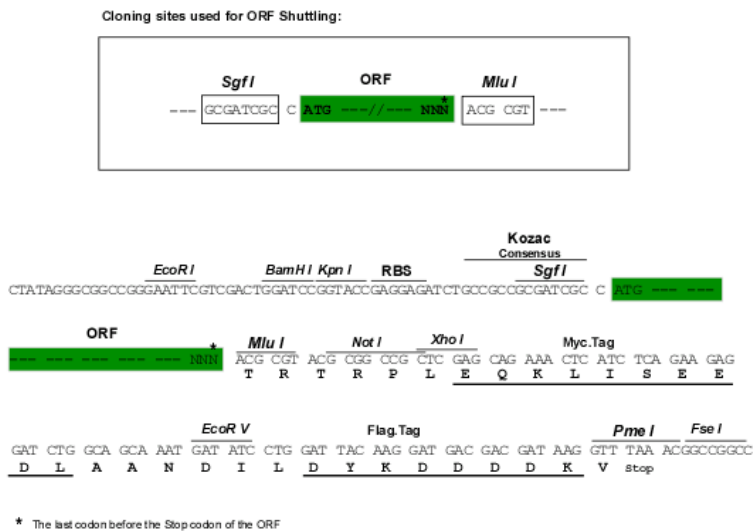
Protein Sequence: >RC224847 representing NM_017970
Red=Cloning site Green=Tags(s)

```

MALFPAFAGLSEAPDGGSSRKELDWLSNPSFCVGSITSLSQQTEAAPAHVSEGLPLTRSHLKSSESSDES
TNKKLQTSRKKKKKKKKRKHQHKKTKRKHGPPSSSRSETDSEKDKPSRGVGGSKKESEEPNQGN
AAADTGHRFVWLEDIQAVTGETFRDTPANWEYKSLYRGDIARYKRGDSCGLINPKKQCSWEGTS
TEKKHSRKQVERYFTKKSVMNIDGVAISSKTEPPSSEPI SFIPVKDLEDAAPVTWLNPLGIYDQSTT
HWLQGGQPPEQESKQPDAPDSESAALKAKVEEFNRRVRENPRDTQLWMAFVAFQDEVMSKSPGLYAIIEG
EQEKRRSLKLEKKLAILERAIESNQSSVDLKLAKLCTEFWEPSTLVKEWQKLIIFLHPNNTALWQK
YLLFCQSQFSTFSISKIHSLYGKCLSTLSAVKDGSIKSHPALPGTEEMFALFLQCHFLRQAGHSEKAI
SLFQAMVDFTFFKPDVKDLPTKQVEFFPFWDSGEPAGEKARGGWKAWMHQQRGGWVYINPDEDD
EPEEDDQEI KDKTLPRWQIWLAAERSRDRHWRPWRPDKTKKQTEEDCEDPERQVLFDDIGQSLIRLSSH
DLQFQLVEAFLQFLGVPSGFTPPASCLYLAMDENSIFDNGLYDEKPLTFNPLFSGASCVGRMDRLGYPR
WTRGQNRGEEFIRNVFHLVPLFSGKEKSQLCFSWLQYEIAKVIWCLHTKNKKRLKSQGNCKKLAKNL
LKEPENCNFCWQYAHLEWLLGNTEDARKVFDALGMAGSRELKSDLCESLLYAELEVELSPEVRR
AATARAVHILTKL TESSPYGPTGVLAHVHILKARKAYEHALQDCLGDSCVSNPAPTDCSRLISLAKCF
MLFYQLTIGIDAAVQIYEQVFAKLNSSVFPEGS GEGDSASSQSWTSVLEAITLMHTSLLRFHMKVSYP
APLREALSQALKLYPGNQVLRYSYVQIQNKSASKTRRFFDTITRSAPLEPWLFAIEAEKLRKRLVET
VQRDLGREIHATIPETGLMHRIQALFENAMRSDSGSQCP LLWRMYLNFLVSLGNKERSKGVFYKALQNCP
WAKVLYLDAVEYFPDEMQEILDLMTEKELRVRLPLEEELLELLLED
    
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI
Cloning Scheme:



ACCN: NM_017970
ORF Size: 3492 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 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM_017970.4](#)

RefSeq Size: 3824 bp

RefSeq ORF: 3495 bp

Locus ID: 55051

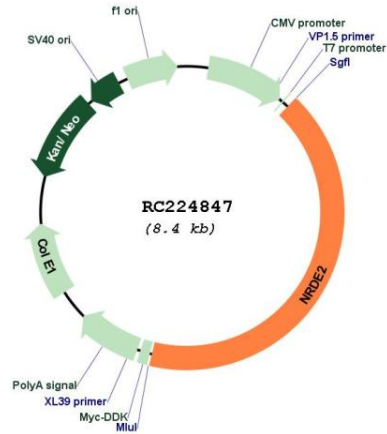
UniProt ID: [Q9H7Z3](#)

Cytogenetics: 14q32.11

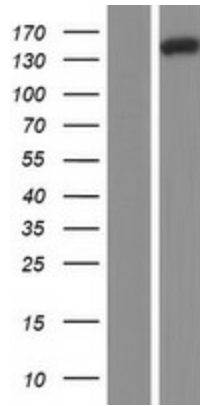
MW: 132.5 kDa

Gene Summary: Protein of the nuclear speckles that regulates RNA degradation and export from the nucleus through its interaction with MTREX an essential factor directing various RNAs to exosomal degradation (PubMed:30842217). Changes the conformation of MTREX, precluding its association with the nuclear exosome and interaction with proteins required for its function in RNA exosomal degradation (PubMed:30842217). Negatively regulates, for instance, the degradation of mRNAs and lncRNAs by inhibiting their MTREX-mediated recruitment to nuclear exosome (PubMed:30842217). By preventing the degradation of RNAs in the nucleus, it promotes their export to the cytoplasm (PubMed:30842217).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC224847



Western blot validation of overexpression lysate (Cat# [LY413404]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224847 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).