

## Product datasheet for RC222529

### NQO1 (NM\_001025434) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	NQO1 (NM_001025434) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NQO1
Synonyms:	DHQU; DIA4; DTD; NMOR1; NMORI; QR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222529 representing NM_001025434 Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG  
 AGGCTGCTGCAGCGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACCT  
 CAATCCCATCATTTCCAGAAAGGACATCACAGGTAACTGAAGGACCCTGCGAACTTTCAGTATCCTGCC  
 GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG  
 CCGCAGACCTTGTGATATTCCAGAGTAAGAAGGCAGTGCTTCCATCACCCTGGTGGCAGTGGCTCCAT  
 GTACTCTCTGCAAGGGATCCACGGGGACATGAATGTCATTCTCTGGCCAATTCAGAGTGGCATTCTGCAT  
 TTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATAGCATTGGGCACACTCCAGCAGACGCCCGAA  
 TTCAAATCCTGGAAGGATGGAAGAAACGCCTGGAGAATATTTGGGATGAGACACCACTGTATTTTGTCTC  
 AAGCAGCCTCTTTGACCTAACTTCCAGGCAGGATTCTTAATGAAAAAGAGGTACAGGATGAGGAGAAA  
 AACAAGAAATTTGGCCTTTCTGTGGGCCATCACTTGGCAAGTCCATCCCACTGACAACCATGATCAAG  
 CTAGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA


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**Protein Sequence:** >RC222529 representing NM\_001025434  
 Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWEVVEDLYAMNFNPIISRKIDITGKLKDPANFQYPA  
 ESVLAYKEGHLSPDIVAEQKKLEADLVIFQSKKAVLSITTGGSGSMYSLQGIHGMNVILWPIQSGILH  
 FCGFQVLEPQLTYSIGHTPADARIQILEGWKKRLNIWDETPLYFAPSSLFDLNFQAGFLMKKEVQDEEK  
 NKKFGLSVGHHLGKSIPTDNQIKARK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1476\\_g11.zip](https://cdn.origene.com/chromatograms/ja1476_g11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001025434

**ORF Size:** 708 bp

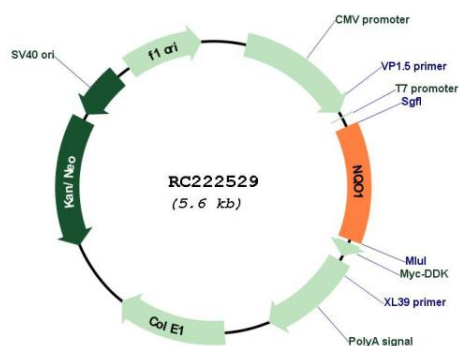
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](#)

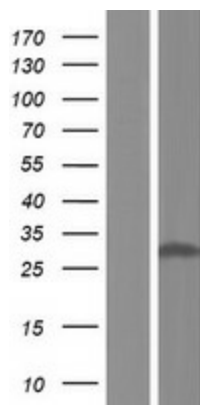
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_001025434.2</a></u>
<b>RefSeq Size:</b>	2487 bp
<b>RefSeq ORF:</b>	711 bp
<b>Locus ID:</b>	1728
<b>UniProt ID:</b>	<u><a href="#">P15559</a></u>
<b>Cytogenetics:</b>	16q22.1
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	26.2 kDa
<b>Gene Summary:</b>	<p>This gene is a member of the NAD(P)H dehydrogenase (quinone) family and encodes a cytoplasmic 2-electron reductase. This FAD-binding protein forms homodimers and reduces quinones to hydroquinones. This protein's enzymatic activity prevents the one electron reduction of quinones that results in the production of radical species. Mutations in this gene have been associated with tardive dyskinesia (TD), an increased risk of hematotoxicity after exposure to benzene, and susceptibility to various forms of cancer. Altered expression of this protein has been seen in many tumors and is also associated with Alzheimer's disease (AD). Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]</p>

## Product images:



Circular map for RC222529



Western blot validation of overexpression lysate (Cat# [LY422443]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222529 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).