

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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG
AGGCTGCTGCAGCGGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACTT
CAATCCCATCATTTCCAGAAAGGACATCACAGGTAAGTGAAGGACCCTGCGAACTTTAGTATCCTGCC
GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG
CCGACAGCCTTGTGATATCCAGAGTAAGAAGGCAGTGTTCATCACCCTGGTGGCAGTGGCTCCAT
GTACTCTCTGCAAGGGATCCACGGGACATGAATGTCATTCTCTGGCCAATTCAGAGTGGCATTCTGCAT
TTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATAGCATTGGGCACACTCCAGCAGACGCCCGAA
TTCAAATCCTGGAAGGATGGAAGAAACGCCTGGAGAATATTTGGGATGAGACACCACTGTATTTGCTCC
AAGCAGCCTCTTTGACCTAAACTTCCAGGCAGGATTCTTAATGAAAAAGAGGTACAGGATGAGGAGAAA
ACAAGAAATTTGGCCTTTCTGTGGCCATCACTTGGCAAGTCCATCCCAACTGACAACCATGAAAG
CTAGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC222529 representing NM_001025434
Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWVVESDLYAMNFNPIISRKIDITGKLDKDPANFQYPA
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQSKKAVLSITGGSGSMYSLQGIHGDMMVILWPIQSGILH
 FCGFQVLEPQLTYSIGHTPADARIQILEGWKKRLNIWDETPLYFAPSSLFDLNFQAGFLMKKEVQDEEK
 NKKFGLSVGHHLGKSIPTDNQIKARK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1476_g11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001025434

ORF Size: 708 bp

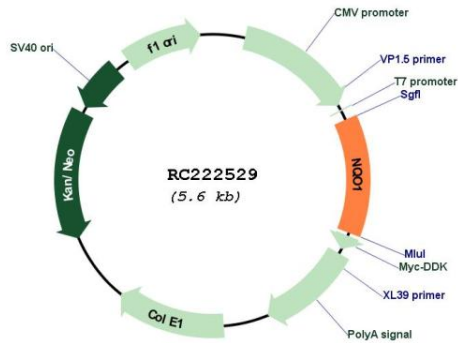
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA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

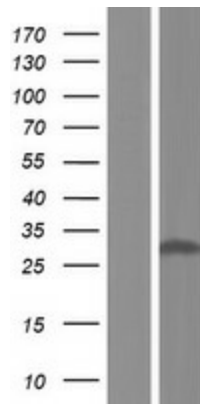
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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:	<u>NM_001025434.2</u>
RefSeq Size:	2487 bp
RefSeq ORF:	711 bp
Locus ID:	1728
UniProt ID:	<u>P15559</u>
Cytogenetics:	16q22.1
Protein Families:	Druggable Genome
MW:	26.2 kDa
Gene Summary:	<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]).