

## Product datasheet for RC236529

### NQO1 (NM\_001286137) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NQO1 (NM\_001286137) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** NQO1  
**Synonyms:** DHQU; DIA4; DTD; NMOR1; NMORI; QR1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC236529 representing NM\_001286137  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG  
 AGGCTGCTGCAGCGGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAAGT  
 CAATCCCATCATTCCAGAAAGGACATCACAGGTAAGTGAAGGACCTGCGAATTTTCAGTATCCTGCC  
 GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG  
 CCGCAGACCTTGTGATATTCCAGAGTGGCATTCTGCATTTCTGTGGCTTCCAAGTCTTAGAACCTCAACT  
 GACATATAGCATTGGGCACACTCCAGCAGACGCCGAATTCAAATCCTGGAAGGATGGAAGAAACGCCTG  
 GAGAATATTTGGGATGAGACCACTGTATTTGCTCCAAGCAGCCTCTTTGACCTAAACTTCCAGGCAG  
 GATTCTTAATGAAAAAGAGGTACAGGATGAGGAGAAAAACAAGAAATTTGGCCTTTCTGTGGGCCATCA  
 CTTGGGCAAGTCCATCCCAACTGACAACCAGATCAAAGCTAGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC236529 representing NM\_001286137  
 Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSSERTSFNYAMKEAAAAALKKKGWEVVESDLYAMNFPNII SRKIDITGKLDPANFQYPA  
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQSGILHFCGFQVLEPQLTYSIGHTPADARIQILEGWKKRL  
 ENIWDETPLYFAPSSLFDLNFQAGFLMKKEVQDEEKNKFFGLSVGHHLGKSIPTDNQIKARK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

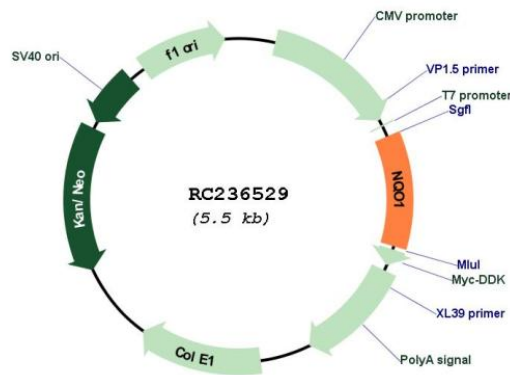
**Restriction Sites:** Sgfl-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM\_001286137

ORF Size: 606 bp

OTI Disclaimer: 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\\_001286137.2](#)

**RefSeq Size:** 2423 bp

**RefSeq ORF:** 609 bp

**Locus ID:** 1728

**Cytogenetics:** 16q22.1

**Protein Families:** Druggable Genome

**MW:** 23.2 kDa

**Gene Summary:** 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]