

## Product datasheet for **RC223447**

### **NQO1 (NM\_001025433) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NQO1 (NM\_001025433) 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:** >RC223447 representing NM\_001025433  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG  
AGGCTGCTGCAGCGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACTT  
CAATCCCATCATTTCCAGAAAGGACATCACAGGTAAGTGAAGGACCCTGCGAACTTTCAGTATCCTGCC  
GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG  
CCGACAGCCTTGTGATATTCCAGTTCCTCCCTGCAGTGGTTGGAGTCCCTGCCATTCTGAAAGGCTGGTT  
TGAGCGAGTGTTATAGGAGAGTTTGCTTACACTTACGCTGCCATGTATGACAAAGGACCCTCCGGAGT  
GGCATTCTGCATTTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATAGCATTGGGCACACTCCAG  
CAGACGCCGAATTCAAATCCTGGAAGGATGGAAGAAACGCTGGAGAATATTTGGGATGAGACACCACT  
GTATTTTGTCTCAAGCAGCCTCTTTGACCTAAACTCCAGGCAGGATTCTTAATGAAAAAAGAGGTACAG  
GATGAGGAGAAAAACAAGAAATTTGGCCTTCTGTGGGCCATCACTTGGGCAAGTCCATCCCAACTGACA  
ACCAGATCAAAGCTAGAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC223447 representing NM\_001025433  
Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWVVESDLYAMNFNPIISRKIDITGKLDKDPANFQYPA  
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQFPLQWFGVPAILKGFVRFVIGEFAYTYAAMYDKGPFRS  
 GILHFCGFQVLEPQLTYSIGHTPADARIQILEGWKKRLNIWDETPLYFAPSSLFDLNFQAGFLMKKEVQ  
 DEEKNKKFGLSVGHHLGKSIPTDNQIKARK

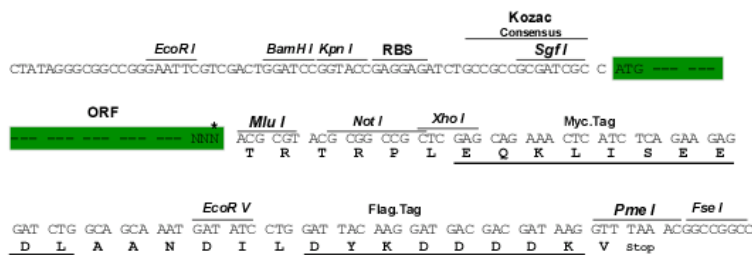
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001025433

**ORF Size:** 720 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\\_001025433.2](#)

**RefSeq Size:** 2499 bp

**RefSeq ORF:** 723 bp

**Locus ID:** 1728

**UniProt ID:** [P15559](#)

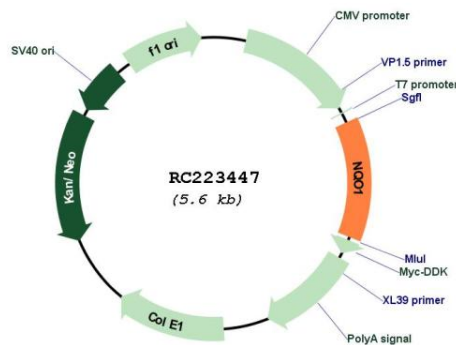
**Cytogenetics:** 16q22.1

**Protein Families:** Druggable Genome

**MW:** 27.1 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]

### Product images:



Circular map for RC223447