

## Product datasheet for **RC200620**

### **NQO1 (NM\_000903) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NQO1 (NM\_000903) 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:** >RC200620 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG  
AGGCTGCTGCAGCGGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAAGT  
CAATCCCATCATTCCAGAAAGGACATCACAGGTAAGTGAAGGACCCTGCGAACTTTCAGTATCCTGCC  
GAGTCTGTTCTGGCTTAAAGAAGGCCATCTGAGCCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG  
CCGCAGACCTTGTGATATTCCAGTTCCTCCCTGCAGTGGTTGGAGTCCCTGCCATTCTGAAAGGCTGGT  
TGAGCGAGTGTTATAGGAGAGTTTGTACACTTACGCTGCCATGTATGACAAAGGACCCTCCCGAGT  
AAGAAGGCAGTGCTTCCATCACCACTGGTGGCAGTGGCTCCATGTAATCTCTGCAAGGGATCCACGGGG  
ACATGAATGTCATTCTCTGGCCAATTCAGAGTGGCATTCTGCATTTCTGTGGCTTCCAAGTCTTAGAAC  
TCAACTGACATATAGCATTGGGCACACTCCAGCAGACGCCGAATTCAAATCCTGGAAGGATGGAAGAAA  
CGCCTGGAGAATTTGGGATGAGACCACTGTATTTGCTCCAAGCAGCCTTTTGACCTAAACTTCC  
AGGCAGGATCTTAATGAAAAAGAGGTACAGGATGAGGAGAAAAACAAGAAATTTGGCCTTCTGTGG  
CCATCACTTGGCAAGTCCATCCAACCTGACAACCAGATCAAAGCTAGAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



**Protein Sequence:** >RC200620 protein sequence  
Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWEVVESDLYAMNFNPIISRKIDITGKLDKDPANFQYPA  
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQFPLQWFGVPAILKGFVFERVFIGEFAYTYAAMYDKGPFRS  
 KKAVLSITTTGGSGSMYSLQGIHGD MNVILWPIQSGILHFCGFGVLEPQLTYSIGHTPADARIQILEGWKK  
 RLENIWDETPLYFAPSSLFDLNFQAGFLMKKEVQDEEKKKFGLSVGHHLGKSIPTDNQIKARK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6144\\_c07.zip](https://cdn.origene.com/chromatograms/mk6144_c07.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\_000903

**ORF Size:** 822 bp

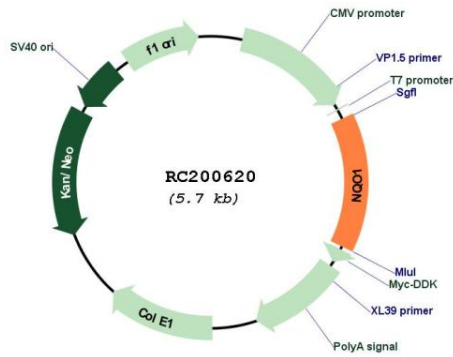
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

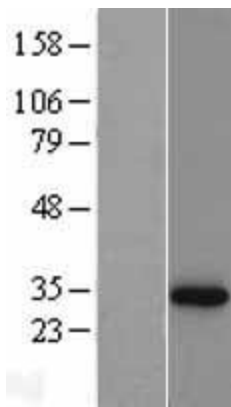
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>RefSeq:</b>	<a href="#">NM_000903.3</a>
<b>RefSeq Size:</b>	2601 bp
<b>RefSeq ORF:</b>	825 bp
<b>Locus ID:</b>	1728
<b>UniProt ID:</b>	<a href="#">P15559</a>
<b>Cytogenetics:</b>	16q22.1
<b>Domains:</b>	Flavodoxin_2
<b>Protein Families:</b>	Druggable Genome
<b>MW:</b>	30.9 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>

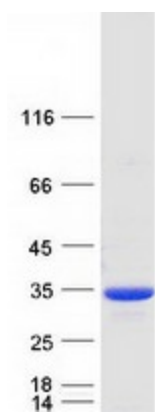
Product images:



Circular map for RC200620



Western blot validation of overexpression lysate (Cat# [LY400327]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200620 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NQO1 protein (Cat# [TP300620]). The protein was produced from HEK293T cells transfected with NQO1 cDNA clone (Cat# RC200620) using MegaTran 2.0 (Cat# [TT210002]).