

## Product datasheet for **RG222529**

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

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NQO1 (NM\_001025434) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** NQO1  
**Synonyms:** DHQU; DIA4; DTD; NMOR1; NMORI; QR1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG222529 representing NM\_001025434  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG  
 AGGCTGCTGCAGCGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACTT  
 CAATCCCATCATTTCCAGAAAGGACATCACAGGTAAGTGAAGGACCCTGCGAACTTTAGTATCCTGCC  
 GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG  
 CCGCAGACCTTGTGATATCCAGAGTAAGAAGGCAGTGTTCATCACCCTGGTGGCAGTGGCTCCAT  
 GTACTCTCTGCAAGGGATCCACGGGACATGAATGTCATTCTCTGGCCAATTCAGAGTGGCATTCTGCAT  
 TTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATAGCATTGGGCACACTCCAGCAGACGCCCGAA  
 TTCAAATCCTGGAAGGATGGAAGAAACGCCTGGAGAATATTTGGGATGAGACACCCTGTATTTTGTCTCC  
 AAGCAGCCTCTTTGACCTAAACTTCCAGGCAGGATTCTTAATGAAAAAGAGGTACAGGATGAGGAGAAA  
 AACAAGAAATTTGGCCTTCTGTGGCCATCACTTGGCAAGTCCATCCCAACTGACAACCATGAGGAGAAA  
 CTAGAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG222529 representing NM\_001025434  
Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWVVESDLYAMNFNPIISRKIDITGKLDKDPANFQYPA  
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQSKKAVLSITGGSGSMYSLQGIHGDMMNVILWPIQSGILH  
 FCGFQVLEPQLTYSIGHTPADARIQILEGWKKRLENIWDETPLYFAPSSLFDLNFQAGFLMKKEVQDEEK  
 NKKFGLSVGHHLGKSIPTDNQIKARK

TRTRPLE - GFP Tag - V

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1886\\_a03.zip](https://cdn.origene.com/chromatograms/ja1886_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001025434

**ORF Size:** 708 bp

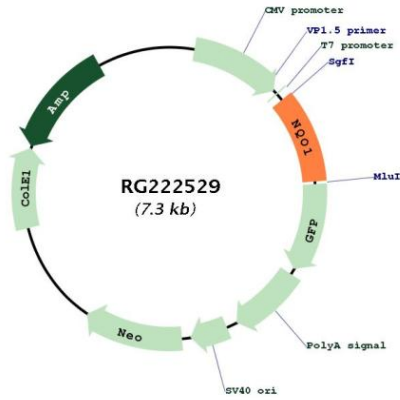
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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>RefSeq:</b>	<a href="#">NM_001025434.2</a>
<b>RefSeq Size:</b>	2487 bp
<b>RefSeq ORF:</b>	711 bp
<b>Locus ID:</b>	1728
<b>UniProt ID:</b>	<a href="#">P15559</a>
<b>Cytogenetics:</b>	16q22.1
<b>Protein Families:</b>	Druggable Genome
<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 RG222529