

Product datasheet for **RG223447**

NQO1 (NM_001025433) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NQO1 (NM_001025433) 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:	>RG223447 representing NM_001025433 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGTCGGCAGAAGAGCACTGATCGTACTGGCTCACTCAGAGAGGACGTCCTTCAACTATGCCATGAAGG
AGGCTGCTGCAGCGCTTTGAAGAAGAAAGGATGGGAGGTGGTGGAGTCGGACCTCTATGCCATGAACTT
CAATCCCATCATTTCCAGAAAGGACATCACAGGTAAGTGAAGGACCCTGCGAACTTTCAGTATCCTGCC
GAGTCTGTTCTGGCTTATAAAGAAGGCCATCTGAGCCAGATATTGTGGCTGAACAAAAGAAGCTGGAAG
CCGACAGCCTTGTGATATTCCAGTTCCTCCCTGCAGTGGTTTGGAGTCCCTGCCATTCTGAAAGGCTGGTT
TGAGCGAGTGTTATAGGAGAGTTTGCTTACACTTACGCTGCCATGTATGACAAAGGACCCTTCCGGAGT
GGCATTCTGCATTCTGTGGCTTCCAAGTCTTAGAACCTCAACTGACATATAGCATTGGGCACACTCCAG
CAGACGCCGAATTCAAATCCTGGAAGGATGGAAGAAACGCTGGAGAATATTTGGGATGAGACACCACT
GTATTTTGTCTCAAGCAGCCTCTTTGACCTAACTTCCAGGCAGGATTCTTAATGAAAAAGAGGTACAG
GATGAGGAGAAAAACAAGAAATTTGGCCTTCTGTGGCCATCACTTGGGCAAGTCCATCCCACTGACA
ACCAGATCAAAGCTAGAAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223447 representing NM_001025433
 Red=Cloning site Green=Tags(s)

MVGRRALIVLAHSERTSFNYAMKEAAAAALKKKGWVVESDLYAMNFNPIISRKIDITGKLDKDPANFQYPA
 ESVLAYKEGHLSPDIVAEQKKLEAADLVIFQFPLQWFGVPAILKGFVFERVFIGEFAYTYAAMYDKGPFRS
 GILHFCGFQVLEPQLTYSIGHTPADARIQILEGWKKRLENIWDETPLYFAPSSLFDLNFQAGFLMKKEVQ
 DEEKKKFGLSVGHHLGKSIPTDNQIKARK

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

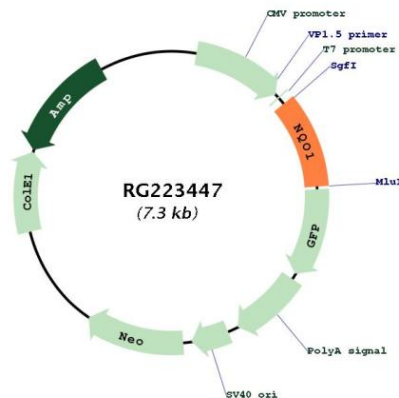
UniProt ID: [P15559](#)

Cytogenetics: 16q22.1

Protein Families: Druggable Genome

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 RG223447