

# Recombinant Human NAD(P)H Dehydrogenase, Quinone 1

Cat. No. NQO1-377H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

Recombinant Human NQO1 protein was expressed in E.coli and purified by using conventional chromatography techniques. MW = 33.0 kDa (294aa).

### Species

Human

### Source

E.coli

### Description

NQO1 is a member of the NAD(P)H dehydrogenase (quinone) family and encodes a cytoplasmic 2-electron reductase. This protein apparently serves as a quinone reductase in connection with conjugation reactions of hydroquinones involved in detoxification pathways as well as in biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin synthesis. NQO1 functions as an important part of cellular antioxidant defense by detoxifying quinines thus preventing the formation of reactive oxygen species. Altered expression of NQO1 has been seen in many tumors and is also associated with Alzheimer's disease (AD).

### Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH MVGRRALIVL AHSERTSFNY AMKEAAAAAL  
 KKKGWVAVES DLYAMNFNPI ISRKDITGKL KDPANFQYPA ESLVAYKEGH  
 LSPDIVAEQK KLEAADLVIF QFPLQWFGVP AILKGWFERV FIGEFAYTYA  
 AMYDKGPFERS KKAVALSITG GSGSMYSLQG IHGDMNVILW PIQSGILHFC  
 GFQVLEPQLT YSIGHTPADA RIQILEGWKK RLENIWDETP LYFAPSSLFD  
 LNFQAGFLMK KEVQDEEKNK KFGLSVGHHL GKSIPTDNQi KARK

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<b>Form</b>	Liquid. In 20mM Tris-HCL buffer (pH 8.0) containing 10% glycerol 1mM DTT.
<b>Purity</b>	> 95% by SDS – PAGE.
<b>Concentration</b>	1 mg/ml (determined by Bradford assay).
<b>Endotoxin Level</b>	< 1.0 EU per 1 µg of protein (determined by LAL method).
<b>Storage</b>	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

## GENE INFORMATION

<b>Gene Name</b>	NQO1 NAD(P)H dehydrogenase, quinone 1 [ Homo sapiens ]
<b>Synonyms</b>	NQO1; NAD(P)H dehydrogenase, quinone 1; DTD; QR1; DHQU; DIA4; NMOR1; NMORI; azoreductase; diaphorase-4; DT-diaphorase; dioxin-inducible 1; menadione reductase; quinone reductase 1; phyloquinone reductase; NAD(P)H:quinone oxidoreductase; NAD(P)H:menadione oxidoreductase 1; NAD(P)H:Quinone acceptor oxidoreductase type 1; diaphorase (NADH/NADPH) (cytochrome b-5 reductase); EC 1.6.5.2; Phyloquinone reductase; NAD(P)H:quinone oxidoreductase 1; NAD(P)H menadione oxidoreductase 1, dioxin-inducible; NAD(P)H dehydrogenase, quinone 1
<b>Gene ID</b>	1728
<b>mRNA Refseq</b>	NM_000903
<b>Protein Refseq</b>	NP_000894
<b>MIM</b>	125860

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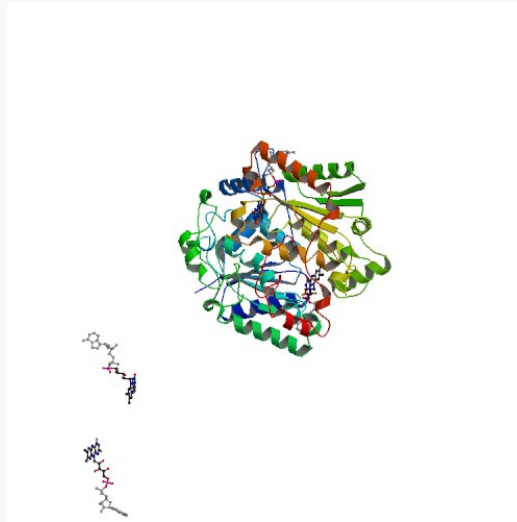
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**UniProt ID** P15559

**Chromosome Location** 16q12-q22

**Function** NAD(P)H dehydrogenase (quinone) activity; coenzyme binding; cytochrome-b5 reductase activity; electron carrier activity; oxidoreductase activity

**PDB rendering based on 1d4a.**



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