

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 SSGLVPRGSH MVGRRALIVL AHSERTSFNY AMKEAAAAAL KKKGWEVVES DLYAMNFNPI ISRKDITGKL KDPANFQYPA ESLAYKEGH LSPDIVAEQK KLEAADLVIF QFPLQWFGVP AILKGWFERV FIGEFAYTYA AMYDKGPFRS KKAVALSITTG GSGSMYSLQG IHGDMNVILW PIQSGILHFC GFQVLEPQLT YSIGHTPADA RIQILEGWKK RLENIWDETP LYFAPSSLFD LNFQAGFLMK KEVQDEEKNK KFGLSVGHHL GKSIPTDNQI KARK

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Form	Liquid. In 20mM Tris-HCL buffer (pH 8.0) containing 10% glycerol 1mM DTT.
Purity	> 95% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Endotoxin Level	< 1.0 EU per 1 µg of protein (determined by LAL method).
Storage	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

Gene Name	NQO1 NAD(P)H dehydrogenase, quinone 1 [Homo sapiens]
Synonyms	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
Gene ID	1728
mRNA Refseq	NM_000903
Protein Refseq	NP_000894
MIM	125860

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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.	