

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

Cat. No. NQO1-1393H Lot. No. (See product label)

## SPECIFICATION

**Product Overview** NQO1 Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 294 amino acids (1-274 a.a.) and having a molecular mass of 33kDa. The NQO1 is purified by proprietary chromatographic techniques.

**Species** Human

**Source** Human

**ProteinLength** 1-274 a.a.

**Description** NQO1 belongs to the NAD(P)H dehydrogenase (quinone) family and encodes a cytoplasmic 2-electron reductase. NQO1 acts as an imperative part of cellular antioxidant defense by detoxifying quinines therefore preventing the formation of reactive oxygen species. It seems that NQO1 serves as a quinone reductase relating to conjugation reactions of hydroquinons involved in detoxification pathways in addition to biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin synthesis. Altered NQO1 expression is seen in many tumors and also linked to Alzheimer's disease. NQO1 gene mutations are linked to tardive dyskinesia which is an increased risk of hematotoxicity after exposure to benzene, and susceptibility to various forms of cancer.

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<b>Form</b>	The NQO1 solution contains 20mM Tris-HCL buffer (pH 8.0), 10% glycerol and 1mM DTT.
<b>Purity</b>	Greater than 95.0% as determined by SDS-PAGE.
<b>Physical Appearance</b>	Sterile Filtered colorless solution.
<b>Storage</b>	NQO1 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

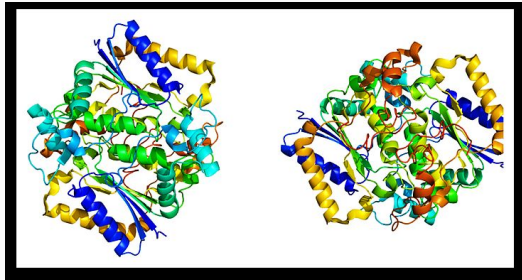
## GENE INFORMATION

<b>Gene Name</b>	NQO1 NAD(P)H dehydrogenase, quinone 1 [ Homo sapiens ]
<b>Official Symbol</b>	NQO1
<b>Synonyms</b>	NQO1; DTD; QR1; DHQU; DIA4; NMOR1; NMORI; NAD(P)H dehydrogenase [quinone] 1; azoreductase; diaphorase-4; DT-diaphorase; OTTHUMP00000174897; OTTHUMP00000174898; dioxin-inducible 1; menadione reductase; quinone reductase 1; phyloquinone reductase; NAD(P)H:quinone oxidoreductase; NAD(P)H:quinone oxidoreductase 1; NAD(P)H:menadione oxidoreductase 1; NAD(P)H:Quinone acceptor oxidoreductase type 1 ; diaphorase (NADH/NADPH) (cytochrome b-5 reductase)
<b>Gene ID</b>	1728
<b>mRNA Refseq</b>	NM_000903
<b>Protein Refseq</b>	NP_000894

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<b>MIM</b>	125860
<b>UniProt ID</b>	P15559
<b>Chromosome Location</b>	16q22.1
<b>Pathway</b>	Keap1-Nrf2 Pathway; Metabolism of amino acids and derivatives; Oxidative Stress; Regulation of ornithine decarboxylase (ODC)
<b>Function</b>	NAD(P)H dehydrogenase (quinone) activity; coenzyme binding; cytochrome-b5 reductase activity; electron carrier activity; oxidoreductase activity
<b>PDB rendering based on 1d4a</b>	

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