

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

Cat. No. Nqo1-721R Lot. No. (See product label)

## SPECIFICATION

<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>Description</b>	<p>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).</p>
<b>Biochem/physiol Actions</b>	Shown to activate quinone based anti-tumor agents in vivo. Suitable for conjugation to carrier molecules.
<b>Other Notes</b>	Catalytic activity is different from human source DT diaphorase.
<b>Unit Definition</b>	One unit will reduce 1.0 μmole cytochrome C per min/mg in the presence of menadione substrate at 37 °C.
<b>Physical Form</b>	Lyophilized powder containing approx. 5% protein balance lactose and PBS buffer salts.

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<b>Assay</b>	~90% (SDS-PAGE).
<b>Form</b>	lyophilized powder.
<b>Mol Wt</b>	monomer mol wt 31000.
<b>Storage Temp</b>	2-8°C.

## GENE INFORMATION

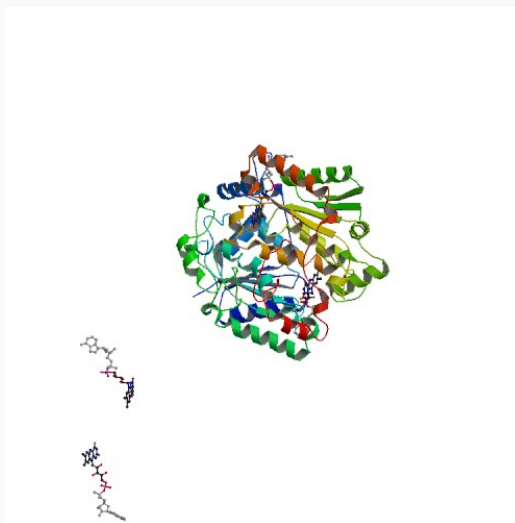
<b>Gene Name</b>	<a href="#">Nqo1 NAD(P)H dehydrogenase, quinone 1 [ Rattus norvegicus ]</a>
<b>Synonyms</b>	NAD(P)H dehydrogenase, quinone 1; Dia4; MGC93075; Nqo1; NAD(P)H dehydrogenase [quinone] 1; DTDQR1; azoreductase; DT-diaphorase; menadione reductase; quinone reductase 1; Diaphorase (NADH/NADPH); phyloquinone reductase; NAD(P)H:menadione oxidoreductase; NAD(P)H:quinone oxidoreductase 1
<b>Gene ID</b>	<a href="#">24314</a>
<b>mRNA Refseq</b>	<a href="#">NM_017000</a>
<b>Protein Refseq</b>	<a href="#">NP_058696</a>
<b>UniProt ID</b>	<a href="#">P05982</a>
<b>Chromosome Location</b>	19q12
<b>Function</b>	NAD(P)H dehydrogenase (quinone) activity; coenzyme binding; electron carrier activity; oxidoreductase activity

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