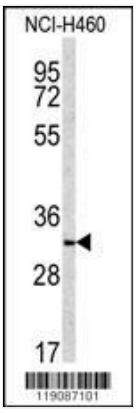
NQO1 Antibody – Rabbit Polyclonal

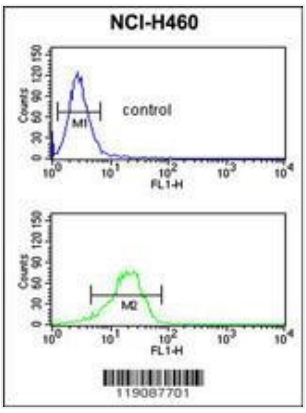
PRODUCT OVERVIEW

Product Name	NQO1, Polyclonal Antibody
Full Product Name	NQO1 (NAD(P)H Dehydrogenase Quinone 1, Azoreductase, Cytochrome b-5 Reductase, DHQU, Diaphorase (NADH/NADPH) (Cytochrome b-5 Reductase), Diaphorase 4, DIA4, Dioxin Inducible 1, DT Diaphorase, DTD, Menadione Reductase, NAD(P)H Menadione Oxidoreductase 1 Di
Product Gene Name	anti-NQO1 antibody
Product Synonym Names	NAD(P)H Dehydrogenase [Quinone] 1; EC=1.6.5.2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Ammonium Sulfate Precipitation.
Specificity	Recognizes human NQO1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	33.0 kDa (294aa), confirmed by MALDI-TOF.
OMIM	125860
3D Structure	ModBase 3D Structure for P15559
Immunogen	Synthetic peptide selected from the center region of human NQO1 (KLH).
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-NQO1 antibody	Antibodies; Enzymes; Cytochrome
Applications Tested/Suitable for anti-NQO1 antibody	Western Blot (WB), FLISA
Application Notes for anti-NQO1 antibody	WB: 1:50-1:100 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-NQO1 antibody	MBS6490446 is an antibody targeting NQO1. Also known as NQO1 (NAD(P)H Dehydrogenase Quinone 1, Azoreductase, Cytochrome b-5 Reductase, DHQU, Diaphorase (NADH/NADPH) (Cytochrome b-5 Reductase), Diaphorase 4, DIA4, Dioxin Inducible 1, DT Diaphorase, DTD, Menadione Reductase, NAD(P)H Menadione Oxidoreductase 1 Di. Reactive in Human. Host: Rabbit.
Product References and Citations for anti-NQO1 antibody	1. Hubackova, M., Vaclavikova, R. Pharmacogenet. Genomics 19(7), 505-512 (2009). 2. Canova, C., Hashibe, M. Cancer Res. 69(7), 2956-2965 (2009). 3. Li, Y. and Jaiswal, A.K. J. Biol. Chem. 267(21), 15097-15104 (1992).

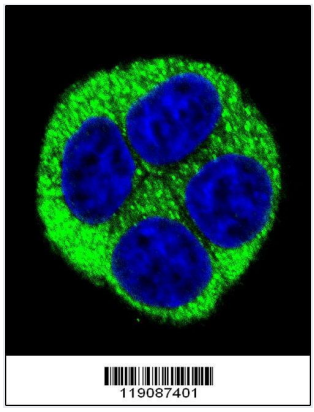
Other Notes	Small volumes of anti-NQO1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-NQO1 antibody
Western blot analysis of NQO1 antibody (Center) in NCI-H460 cell line lysates (35ug/lane). NQO1 (arrow) was detected using the purified Pab.



Flow Cytometry (FC/FACS) of anti-NQO1 antibody
NQO1 antibody (Center) flow cytometric analysis of NCI-H460 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Immunofluorescence (IF) of anti-NQO1 antibody
Confocal immunofluorescent analysis of NQO1 Antibody (Center) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NQO1. It may not necessarily be applicable to this product.

NCBI GI #	118607
NCBI GeneID	1728
NCBI Accession #	NP_000894
UniProt Primary Accession #	P15559
UniProt Related Accession #	P15559
NCBI Official Full Name	NAD(P)H dehydrogenase
NCBI Official Synonym Full Names	NAD(P)H quinone dehydrogenase 1
NCBI Official Symbol	NQO1
NCBI Official Synonym Symbols	DTD; QR1; DHQU; DIA4; NMOR1; NMORI
UniProt Protein Name	NAD(P)H dehydrogenase [quinone] 1

UniProt Synonym Protein Names	Azoreductase; DT-diaphorase; DTD; Menadione reductase; NAD(P)H:quinone oxidoreductase 1; Phylloquinone reductase; Quinone reductase 1; QR1
Protein Family	NAD(P)H dehydrogenase
UniProt Gene Name	NQO1
UniProt Synonym Gene Names	DIA4; NMOR1; DTD; QR1
UniProt Entry Name	NQO1_HUMAN
NCBI Protein Information	NAD(P)H dehydrogenase [quinone] 1
NCBI Summary for NQO1	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]
UniProt Comments for NQO1	NQO1: a FAD-binding flavoprotein enzyme that that prevents the one electron reduction of quinones that results in the production of radical species. Involved in detoxification pathways as well as in biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin synthesis. Mutations have been associated with tardive dyskinesia (TD), an increased risk of hematotoxicity after exposure to benzene, and susceptibility to various forms of cancer. The expression of NQO1 is increased in liver, colon and breast tumors and non-small cell lung cancer (NSCLC) compared with the normal tissues. Moreover, expression levels are also elevated in developing tumors, suggesting a role for NQ01 in the prevention of tumor development. A homozygous common missense variant (NQO1(*)2, rs1800566(T)), that disables NQO1 strongly predicts poor survival among two independent series of women with breast cancer. Studies on NQO1 knockout mice suggest that the lack of NQO1 enzymatic activity changes intracellular redox states resulting in a reduction in apoptosis, which in turn leads to myeloid hyperplasia of bone marrow. Altered expression is associated with Alzheimer's disease (AD). Inhibited by dicoumarol. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Oxidoreductase; EC 1.6.5.2 Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: cell soma; cytoplasm; cytosol Molecular Function: identical protein binding; protein binding; NAD(P)H dehydrogenase (quinone) activity; cytochrome-b5 reductase activity; superoxide dismutase activity Biological Process: response to ethanol; removal of superoxide radicals; response to toxin; xenobiotic metabolic process; positive regulation of neuron apoptosis; negative regulation of catalytic activity; regulation of amino acid metabolic process; nitric oxide biosynthetic process; response to nutrient; response to estradiol stimulus; aging; synaptic transmission, cholinergic
Research Articles on NQO1	**1.** The flexibility of NQO1 is critical to its function, and it is impaired in cancer. (Review)
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