

Anti-NQ01 Antibody

Rabbit polyclonal antibody to NQO1 Catalog # AP59537

Specification

Anti-NQ01 Antibody - Product Information

Application WB
Primary Accession P15559
Reactivity Human, Mouse, Rat, Monkey

Host Rabbit
Clonality Polyclonal
Calculated MW 30868

Anti-NQ01 Antibody - Additional Information

Gene ID 1728

Other Names

DIA4; NMOR1; NAD(P)H dehydrogenase [quinone] 1; Azoreductase; DT-diaphorase; DTD; Menadione reductase; NAD(P)H:quinone oxidoreductase 1; Phylloquinone reductase; Quinone reductase 1; QR1

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human NQO1. The exact sequence is proprietary.

Dilution

WB~~WB (1/500 - 1/1000)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-NQ01 Antibody - Protein Information

Name NQO1 {ECO:0000303|PubMed:1657151, ECO:0000312|HGNC:HGNC:2874}

Function

Flavin-containing quinone reductase that catalyzes two- electron reduction of quinones to hydroquinones using either NADH or NADPH as electron donors. In a ping-pong kinetic mechanism, the electrons are sequentially transferred from NAD(P)H to flavin cofactor and then from reduced flavin to the quinone, bypassing the formation of semiquinone and reactive oxygen species (By similarity) (PubMed:8999809, PubMed:9271353). Regulates cellular redox state primarily through quinone



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detoxification. Reduces components of plasma membrane redox system such as coenzyme Q and vitamin quinones, producing antioxidant hydroquinone forms. In the process may function as superoxide scavenger to prevent hydroquinone oxidation and facilitate excretion (PubMed: 15102952, PubMed:8999809, PubMed:9271353). Alternatively, can activate guinones and their derivatives by generating redox reactive hydroguinones with DNA cross-linking antitumor potential (PubMed:8999809). Acts as a gatekeeper of the core 20S proteasome known to degrade proteins with unstructured regions. Upon oxidative stress, interacts with tumor suppressors TP53 and TP73 in a NADH-dependent way and inhibits their ubiquitin-independent degradation by the 20S proteasome (PubMed:15687255, PubMed:28291250).

Cellular Location

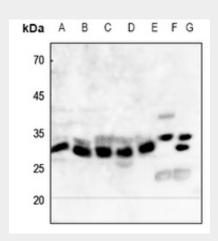
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P05982}

Anti-NQO1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-NQO1 Antibody - Images



Western blot analysis of NQO1 expression in HEK293T (A), Hela (B), A2788 (C), H460 (D), HepG2 (E), mouse kidney (F), rat kidney (G) whole cell lysates.

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