

NQ01 Polyclonal Antibody

Catalog # AP71369

Specification

NQ01 Polyclonal Antibody - Product Information

Application WB
Primary Accession P15559
Reactivity Human
Host Rabbit
Clonality Polyclonal

NQ01 Polyclonal Antibody - Additional Information

Gene ID 1728

Other Names

NQO1; 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: OR1

Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

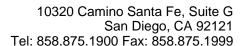
-20°C

NQO1 Polyclonal 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<a>). Regulates cellular redox state primarily through quinone 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:9271353, PubMed:9271353, Alternatively, can activate quinones and their derivatives by generating redox reactive hydroquinones 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

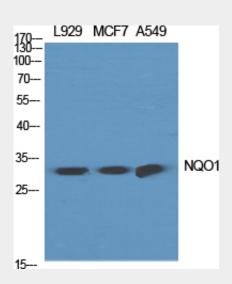
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P05982}

NQO1 Polyclonal Antibody - Protocols

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

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

NQ01 Polyclonal Antibody - Images

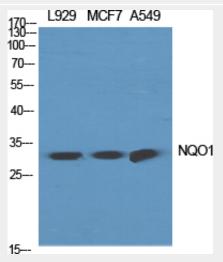


Western Blot analysis of various cells using NQO1 Polyclonal Antibody diluted at 1□2000

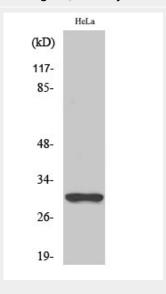




Western Blot analysis of Jurkat cells using NQO1 Polyclonal Antibody diluted at 1□2000

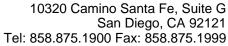


Western Blot analysis of various cells using NQO1 Polyclonal Antibody diluted at 1□2000



Western Blot analysis of Jurkat cells using NQO1 Polyclonal Antibody diluted at 1□2000

NQO1 Polyclonal Antibody - Background





The enzyme apparently serves as a quinone reductase in connection with conjugation reactions of hydroquinons involved in detoxification pathways as well as in biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin synthesis.