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NQO1 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14623

Product Information

Application	WB
Primary Accession	P15559
Other Accession	NM_000903, NP_000894
Reactivity	Human, Rat, Rabbit, Dog, Bovine
Predicted	Human, Rabbit, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30868

Additional Information

Gene ID	1728
Alias Symbol	DHQU, DIA4, DTD, NMOR1, NMORI, QR1
Other Names	NAD(P)H dehydrogenase [quinone] 1, 1.6.5.2, Azoreductase, DT-diaphorase, DTD, Menadione reductase, NAD(P)H:quinone oxidoreductase 1, Phylloquinone reductase, Quinone reductase 1, QR1, NQO1, DIA4, NMOR1
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-NQO1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	NQO1 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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 detoxification. Reduces components of plasma membrane redox system such as coenzyme Q and vitamin quinones, producing antioxidant hydroquinone forms. In the process

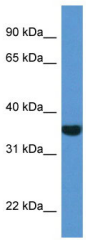
may function as superoxide scavenger to prevent hydroquinone oxidation and facilitate excretion (PubMed:15102952, PubMed:8999809, PubMed:9271353). Alternatively, can activate quinones and their derivatives by generating redox reactive hydroquinones with DNA cross-linking antitumor potential (PubMed:8999809). 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}

References

Jaiswal A.K.,et al.J. Biol. Chem. 263:13572-13578(1988).
Jaiswal A.K.,et al.Biochemistry 30:10647-10653(1991).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Martin J.,et al.Nature 432:988-994(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images



WB Suggested Anti-NQO1 Antibody Titration: 1.0 µg/ml Positive Control: 721_B Whole CellThere is BioGPS gene expression data showing that NQO1 is expressed in 721_B