10320 Camino Santa Fe, Suite G San Diego, CA 92121 Tel: 858.875.1900 Fax: 858.875.1999



# 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**

NQ01 {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).

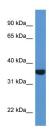
**Cellular Location** 

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  $\mu$ g/ml Positive Control: 721\_B Whole CellThere is BioGPS gene expression data showing that NQO1 is expressed in 721\_B

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.