

**NQO1 Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS15396****Specification**

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**NQO1 Antibody (Internal) - Product Information**

Application	WB
Primary Accession	<a href="#">P15559</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	31kDa KDa

**NQO1 Antibody (Internal) - Additional Information****Gene ID** 1728**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

**Target/Specificity**

Human NQO1. This antibody is expected to recognize reported isoform a (NP\_000894.1) only.

**Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

**Precautions**

NQO1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**NQO1 Antibody (Internal) - 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 (PubMed:<a href="http://www.uniprot.org/citations/8999809" target="\_blank">8999809</a>, PubMed:<a href="http://www.uniprot.org/citations/9271353" target="\_blank">9271353</a>) (By similarity). 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:<a href="http://www.uniprot.org/citations/8999809" target="\_blank">8999809</a>, PubMed:<a href="http://www.uniprot.org/citations/8999809" target="\_blank">8999809</a>).

href="http://www.uniprot.org/citations/9271353" target="\_blank">9271353</a>, PubMed:<a href="http://www.uniprot.org/citations/15102952" target="\_blank">15102952</a>). Alternatively, can activate quinones and their derivatives by generating redox reactive hydroquinones with DNA cross-linking antitumor potential (PubMed:<a href="http://www.uniprot.org/citations/8999809" target="\_blank">8999809</a>). 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:<a href="http://www.uniprot.org/citations/15687255" target="\_blank">15687255</a>, PubMed:<a href="http://www.uniprot.org/citations/28291250" target="\_blank">28291250</a>).

#### **Cellular Location**

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

#### **NQO1 Antibody (Internal) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **NQO1 Antibody (Internal) - Images**



NQO1 antibody (0.3 ug/ml) staining of Human Kidney lysate (35 ug protein/ml in RIPA buffer).

#### **NQO1 Antibody (Internal) - Background**

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

#### **NQO1 Antibody (Internal) - 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.