

**NQO1 (isoform a) Antibody (internal region)**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF3483a****Specification**

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**NQO1 (isoform a) Antibody (internal region) - Product Information**

Application	WB, E
Primary Accession	<a href="#">P15559</a>
Other Accession	<a href="#">NP_000894.1</a> , <a href="#">1728</a>
Reactivity	Human
Predicted	Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	30868

**NQO1 (isoform a) Antibody (internal region) - 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

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

NQO1 (isoform a) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**NQO1 (isoform a) Antibody (internal region) - 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:<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>). 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/15102952" target="\_blank">15102952</a>, 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>). 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>).

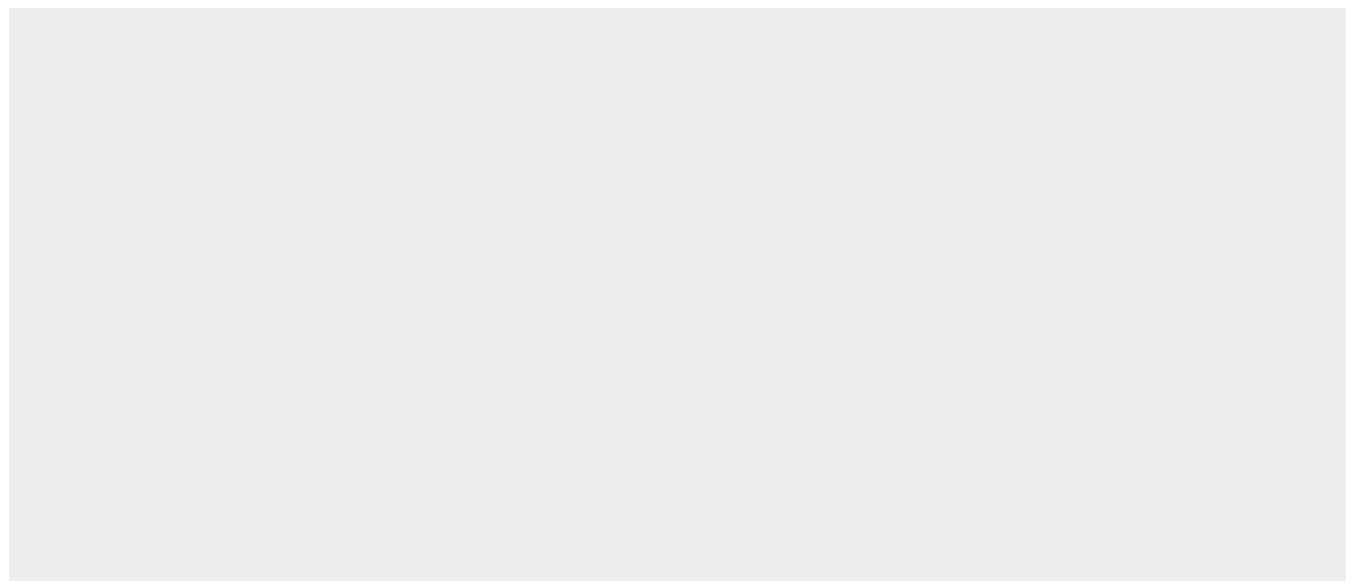
**Cellular Location**

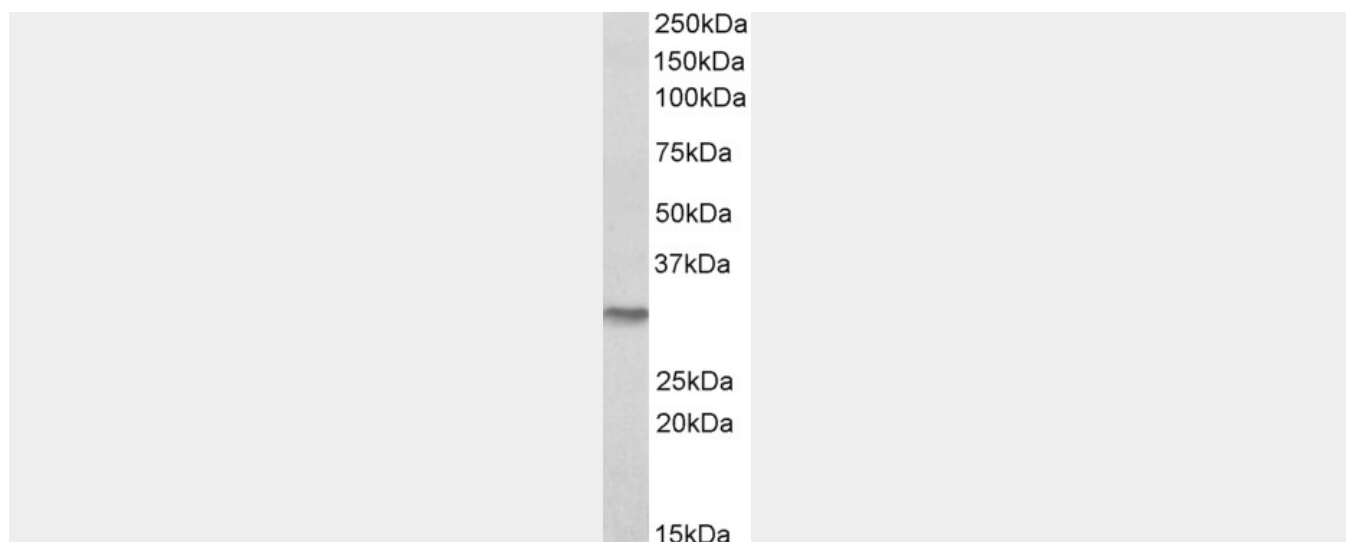
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P05982}

**NQO1 (isoform a) Antibody (internal region) - 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 (isoform a) Antibody (internal region) - Images**



AF3483a (0.3 µg/ml) staining of Human Kidney lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **NQO1 (isoform a) Antibody (internal region) - Background**

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

#### **NQO1 (isoform a) Antibody (internal region) - References**

NQO1 stabilizes p53 through a distinct pathway. Asher G, Lotem J, Kama R, Sachs L, Shaul Y, Proceedings of the National Academy of Sciences of the United States of America 2002 Mar 99 (5): 3099-104. PMID: 11867746