

# NQO1 Rabbit mAb

Catalog # AP75819

#### Specification

## NQO1 Rabbit mAb - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW

WB, IP <u>P15559</u> Human, Rat Rabbit Monoclonal Antibody 30868

## NQO1 Rabbit mAb - Additional Information

Gene ID 1728

Other Names NQO1

**Dilution** WB~~1/500-1/1000 IP~~N/A

Format Liquid

## NQO1 Rabbit mAb - Protein Information

## Name NQO1 {ECO:0000303|PubMed:1657151, ECO:0000312|HGNC:HGNC:2874}

Function

Flavin-containing guinone reductase that catalyzes two- electron reduction of guinones 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 guinone, bypassing the formation of semiguinone 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 guinones, producing antioxidant hydroguinone forms. In the process may function as superoxide scavenger to prevent hydroguinone 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 Rabbit mAb - Protocols

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

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

#### NQO1 Rabbit mAb - Images

