

NQO1 Rabbit pAb
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Catalog # AP93956**Specification**

NQO1 Rabbit pAb - Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q64669
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse NQO1
Epitope Specificity	201-274/274
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
SIMILARITY	Belongs to the NAD(P)H dehydrogenase (quinone) family.
SUBUNIT	Homodimer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

This gene is a member of the NAD(P)H dehydrogenase (quinone) family and encodes a cytoplasmic 2-electron reductase. This FAD-binding protein forms homodimers and reduces quinones to hydroquinones. This protein's enzymatic activity prevents the one electron reduction of quinones that results in the production of radical species. Mutations in this gene have been associated with tardive dyskinesia (TD), an increased risk of hematotoxicity after exposure to benzene, and susceptibility to various forms of cancer. Altered expression of this protein has been seen in many tumors and is also associated with Alzheimer's disease (AD). Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq].

NQO1 Rabbit pAb - Additional Information**Gene ID** 18104**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, Nmo1, Nmor1

Dilution

WB~~1:1000
IHC-P~~N/A
IHC-F~~N/A
IF~~1:50~200

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

NQO1 Rabbit pAb - Protein Information

Name Nqo1

Synonyms Dia4, Nmo1, Nmor1

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:89998098999809). 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 (By similarity). Alternatively, can activate quinones and their derivatives by generating redox reactive hydroquinones with DNA cross-linking antitumor potential (By similarity). 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 (By similarity).

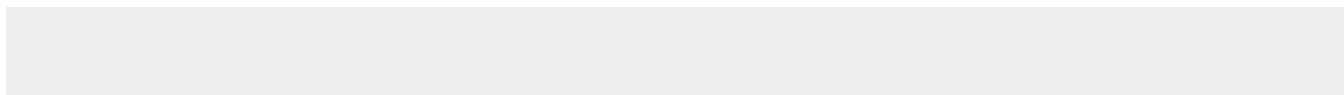
Cellular Location

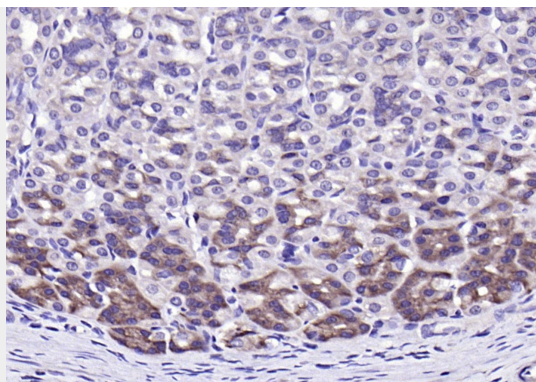
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P05982}

NQO1 Rabbit pAb - Protocols

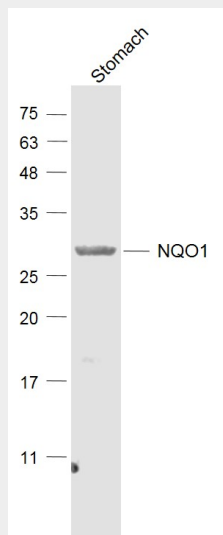
Provided below are standard protocols that you may find useful for product applications.

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

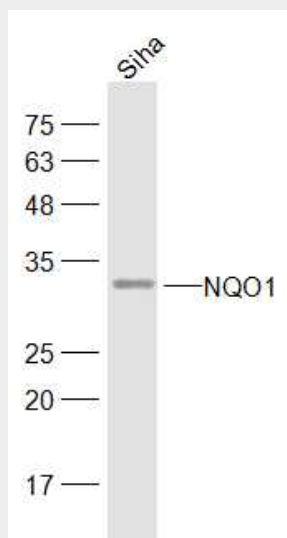
NQO1 Rabbit pAb - Images



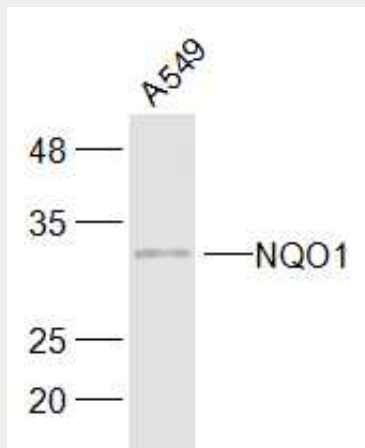
Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NQO1) Polyclonal Antibody, Unconjugated (AP93956) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



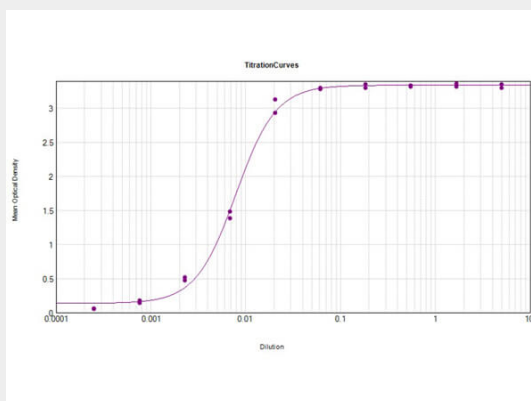
Sample: Stomach (Mouse) Lysate at 40 ug Primary: Anti-NQO1 (AP93956) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 31 kD
Observed band size: 31 kD



Sample: Siha(Human) Cell Lysate at 30 ug Primary: Anti-NQO1 (AP93956) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 31 kD
Observed band size: 31 kD



Sample: A549(Human) Cell Lysate at 30 ug Primary: Anti-NQO1 (AP93956) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 31 kD
Observed band size: 31 kD



ELISA Results of Rabbit Anti-Monkey IgG Antibody Peroxidase Conjugated tested against purified Monkey IgG HRP. Each well was coated in duplicate with 1.0 µg of Monkey IgG (p/n 017-0102). The working dilution is 1:126,000. The starting dilution of antibody was 5 µg/ml and the X-axis represents the Log10 of a 3-fold dilution. This titration is a 4-parameter curve fit where the IC50 is defined as the titer of the antibody. Assay performed using HRP Conjugate Stabilizer (p/n MB-076) and TMB substrate (p/n TMBE-1000).

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