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Anti-NQO1 Antibody

Rabbit polyclonal antibody to NQO1
Catalog # AP59537

Product Information

Application	WB
Primary Accession	P15559
Reactivity	Human, Mouse, Rat, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	30868

Additional Information

Gene ID	1728
Other Names	DIA4; NMOR1; NAD(P)H dehydrogenase [quinone] 1; Azoreductase; DT-diaphorase; DTD; Menadione reductase; NAD(P)H:quinone oxidoreductase 1; Phylloquinone reductase; Quinone reductase 1; QR1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human NQO1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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: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

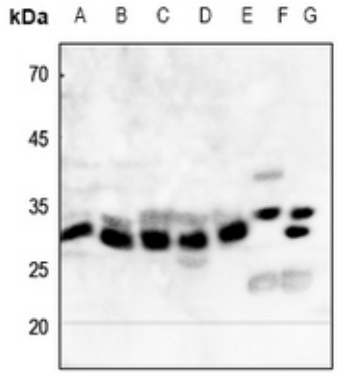
potential (PubMed:8999809). Acts as a gatekeeper of the core 20S proteasome known to degrade proteins with unstructured regions. Upon oxidative stress, interacts with tumor suppressors TP53 and TP73 in a NADH-dependent way and inhibits their ubiquitin-independent degradation by the 20S proteasome (PubMed:15687255, PubMed:28291250).

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

Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human NQO1. The exact sequence is proprietary.

Images



Western blot analysis of NQO1 expression in HEK293T (A), Hela (B), A2788 (C), H460 (D), HepG2 (E), mouse kidney (F), rat kidney (G) whole cell lysates.