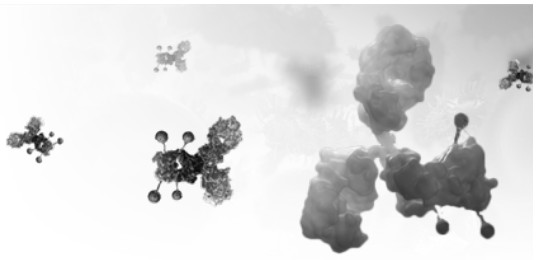

Rabbit Anti-NQO1 monoclonal antibody, clone KG551-2 (CABT-L877)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Target	NQO1
Immunogen	Recombinant protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Clone	KG551-2
Purification	Protein A purified.
Conjugate	Unconjugated
Applications	WB, ICC/IF, IP, FC
Molecular Weight	31/27 kDa
Cellular Localization	Cytoplasm.
Positive Control	Raji, SH-SY-5Y, mouse kidney tissue.
Format	Liquid
Size	100 µl
Buffer	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
Preservative	0.05% Sodium Azide

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Storage	Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

BACKGROUND

Introduction	NAD(P)H:quinone oxidoreductase 1 (NQO1) and NRH:quinone oxidoreductase (NQO2) are flavoproteins that catalyze the metabolic detoxification of quinones and their derivatives to hydroquinones, using either NADH or NADPH as the electron donor. This protects cells against quinone-induced oxidative stress, cytotoxicity, and mutagenicity. Many tumors overexpress NQO1, which is an obligate two-electron reductase that deactivates toxins and activates bioreductive anticancer drugs. NQO1, a 274 amino acid protein, is ubiquitously expressed, but the expression level varies among tissues. NQO1 gene expression is coordinately induced in response to xenobiotics, antioxidants, heavy metals and radiation. The antioxidant response element (ARE) in the NQO1 gene promoter is essential for expression and coordinated induction of NQO1. ARE activation by tert-butylhydroquinone is dependent on PI3-kinase, which lies upstream of Nrf2. Nrf2, c-Jun, Nrf1, Jun-B and Jun-D bind to the ARE and regulate expression and induction of NQO1 gene. Maf-Maf homodimers and possibly Maf-Nrf2 heterodimers play a role in negative regulation of ARE-mediated transcription, but Maf-Nrf1 heterodimers fail to bind with the NQO1 gene ARE and do not repress NQO1 transcription.
Keywords	Azoreductase;Cytochrome b 5 reductase;DHQU;DIA 4;DIA4;Diaphorase (NADH/NADPH) (cytochrome b 5 reductase);Diaphorase (NADH/NADPH);Diaphorase 4;Dioxin inducible 1;DT diaphorase;DT-diaphorase;DTD;Menadione reductase;NAD(P)H dehydrogenase [quinone] 1;NAD(P)H dehydrogenase quinone 1;NAD(P)H menadione oxidoreductase 1 dioxin inducible;NAD(P)H: menadione oxidoreductase 1 dioxin inducible 1;NAD(P)H:menadione oxidoreductase 1;NAD(P)H:Quinone acceptor oxidoreductase type 1;NAD(P)H:quinone oxidoreductase 1;NAD(P)H:quinone oxireductase;NMOR 1;NMOR I;NMOR1;NMORI;NQO 1;NQO1;NQO1_HUMAN;Phylloquinone reductase;QR 1;QR1;Quinone reductase 1 antibody

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