

NQO1 Antibody

ALTERNATE NAMES:	Azoreductase, DT-diaphorase, Menadione reductase, NAD (P) H, quinone oxidoreductase 1	
CATALOG NO:	3639-30T	30 µg (Trial size)
	3639-100	100 µg
HOST:	Rabbit	
ISOTYPE:	IgG	
IMMUNOGEN:	Synthetic peptide at C-terminal (BV-M9)	
PURIFICATION:	Affinity purified rabbit IgG	
FORM:	Liquid	
FORMULATION:	0.5 mg/ml of antibody in PBS, 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol, pH 7.2	
SPECIES REACTIVITY:	Human, Mouse and Rat.	
STORAGE CONDITIONS:	Store for 1 year at -20°C from date of shipment. Avoid repeated freeze/thaw cycles.	

DESCRIPTION: 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.

APPLICATION: Western blot: 1:200

Note: This information is only intended as a guide. The optimal dilutions must be determined by the user.



Western blot with NQO1 antibody
Lane 1: 3T3 cell lysate
Lane 2: Rat Kidney cell lysate

RELATED PRODUCTS:

- NQO1 Blocking Peptide (Cat. No. 3639BP-50)

FOR RESEARCH USE ONLY! Not to be used on humans.