

#3187 Store at -20°C

NQO1 (A180) Mouse mAb



✓ 100 µl
(10 western blots)

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rev. 08/25/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #1728
Swiss-Prot Acc. #P15559

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC Endogenous	H	29 kDa	Mouse IgG1**

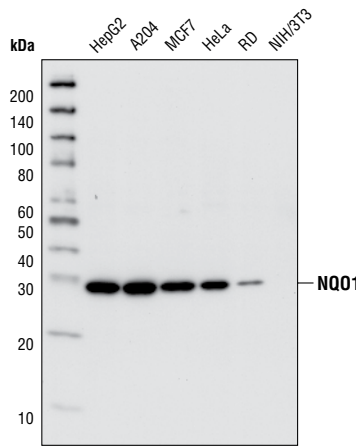
Background: NAD(P)H:quinone oxidoreductase 1 (NQO1) is a flavoprotein that catalyzes the two-electron reduction of quinones and their derivatives (1,2). This enzyme protects cells against redox cycling and oxidative stress (1,3). The expression of NQO1 is increased in liver, colon and breast tumors and non-small cell lung cancer (NSCLC) compared with the normal tissues (1,2). Moreover, expression levels are also elevated in developing tumors, suggesting a role for NQO1 in the prevention of tumor development (1). Studies on NQO1 knockout mice suggest that the lack of NQO1 enzymatic activity changes intracellular redox states resulting in a reduction in apoptosis, which in turns leads to myeloid hyperplasia of bone marrow (2).

Specificity/Sensitivity: NQO1 (A180) Mouse mAb detects endogenous levels of total NQO1 protein.

Source/Purification: NQO1 (A180) Mouse mAb is produced by immunizing mice with purified recombinant human NQO1.

Background References:

- (1) Belinsky, M. and Jaiswal, A.K. (1993) *Cancer Metastasis Rev.* 12, 103–117.
- (2) Siegel, D. et al. (1998) *Clin. Cancer Res.* 4, 2065–2070.
- (3) Long, D.J. et al. (2002) *Cancer Res.* 62, 3030–3036.



Western blot analysis of extracts from several cell lines, using NQO1 (A180) Mouse mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

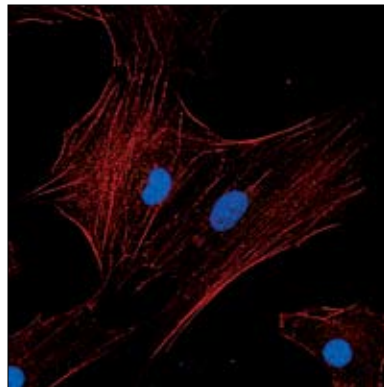
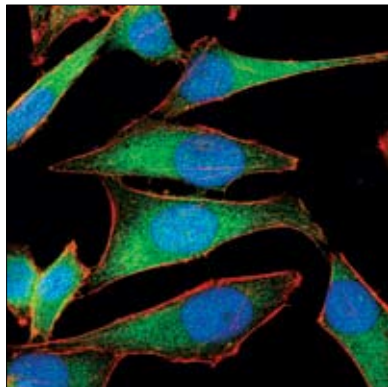
**Anti-mouse secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:25
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS
Immunofluorescence (IF-IC)	1:25

For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

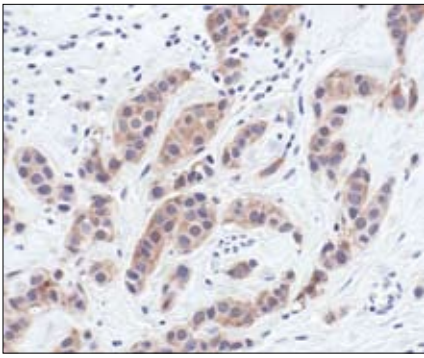


Confocal immunofluorescent analysis of HeLa (left) and NIH/3T3 cells (right) labeled with NQO1 (A180) Mouse mAb (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

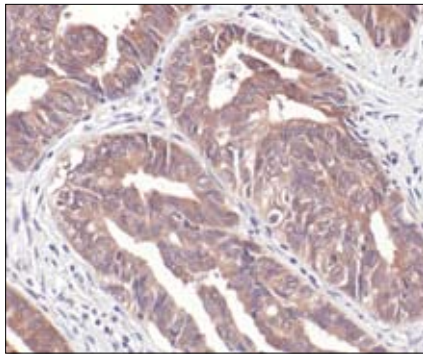
The Alexa Fluor® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc., for research use only, except for use in combination with DNA microarrays. The Alexa Fluor® dyes (except for Alexa Fluor® 430 dye) are covered by pending and issued patents. Alexa Fluor® is a registered trademark of Molecular Probes, Inc.

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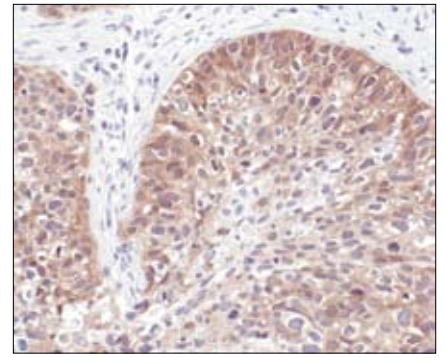
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using NQO1 (A180) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using NQO1 (A180) Mouse mAb.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using NQO1 (A180) Mouse mAb.