

NQO1 (A180) Mouse mAb

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Applications: W, IHC-P, IF-IC	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 29	Source/Isotype: Mouse IgG1	UniProt ID: #P15559	Entrez-Gene Id: 1728
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Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

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

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 turn leads to myeloid hyperplasia of bone marrow (2).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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