

Product datasheet

Anti-NQO1 antibody [EPR3309] ab80588

KO VALIDATED Recombinant RabMAB

★★★★☆ 5 Abreviews 32 References 6 Images

Overview

Product name	Anti-NQO1 antibody [EPR3309]
Description	Rabbit monoclonal [EPR3309] to NQO1
Host species	Rabbit
Tested applications	Suitable for: WB, IP, Flow Cyt, ICC/IF
Species reactivity	Reacts with: Rat, Human Predicted to work with: Mouse
Immunogen	Synthetic peptide within Human NQO1 (N terminal). The exact sequence is proprietary.
Positive control	WB: SH-SY5Y, MCF7, HeLa and A549 cell lysates, rat brain tissue lysate. ICC/IF: MCF-7 cells. IP: HeLa cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAB[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAB[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3309
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab80588** in the following tested applications.

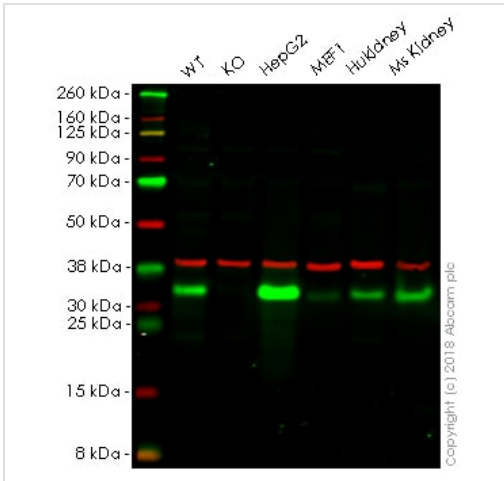
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	1/10000 - 1/150000. Detects a band of approximately 31 kDa (predicted molecular weight: 31 kDa).
IP		1/30 - 1/50.
Flow Cyt		Use at an assay dependent concentration.
ICC/IF		1/50 - 1/80.

Target

Function	The enzyme apparently serves as a quinone reductase in connection with conjugation reactions of hydroquinons involved in detoxification pathways as well as in biosynthetic processes such as the vitamin K-dependent gamma-carboxylation of glutamate residues in prothrombin synthesis.
Sequence similarities	Belongs to the NAD(P)H dehydrogenase (quinone) family.
Cellular localization	Cytoplasm.

Images



Western blot - Anti-NQO1 antibody [EPR3309] (ab80588)

All lanes : Anti-NQO1 antibody [EPR3309] (ab80588) at 1 µg/ml

Lane 1 : Wild-type HAP1 whole cell lysate at 40 µg

Lane 2 : NQO1 knockout HAP1 whole cell lysate at 40 µg

Lane 3 : HepG2 whole cell lysate at 20 µg

Lane 4 : MEF1 whole cell lysate at 20 µg

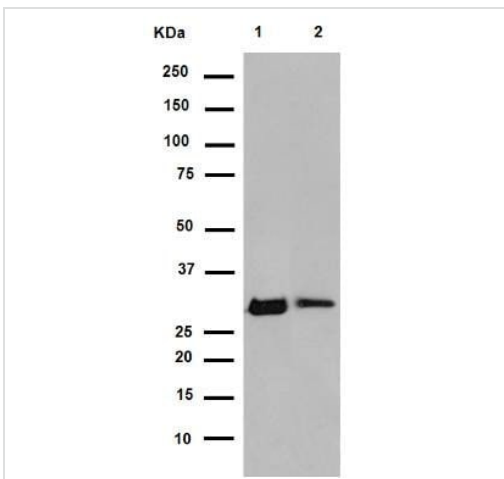
Lane 5 : Human Kidney tissue lysate at 20 µg

Lane 6 : Mouse Kidney tissue lysate at 20 µg

Predicted band size: 31 kDa

Lanes 1 - 6: Merged signal (red and green). Green - ab80588 observed at 31 kDa. Red - loading control, [ab9484](#), observed at 37 kDa.

ab80588 was shown to recognize NQO1 in wild-type HAP1 cells as signal was lost at the expected MW in NQO1 knockout cells. Wild-type and NQO1 knockout samples were subjected to SDS-PAGE. Ab80588 and [ab9484](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed [ab216773](#) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed [ab216776](#) secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-NQO1 antibody [EPR3309] (ab80588)

All lanes : Anti-NQO1 antibody [EPR3309] (ab80588) at 1/25000 dilution (purified)

Lane 1 : SH-SY5Y cell lysate

Lane 2 : Rat brain tissue lysate

Lysates/proteins at 20 µg per lane.

Secondary

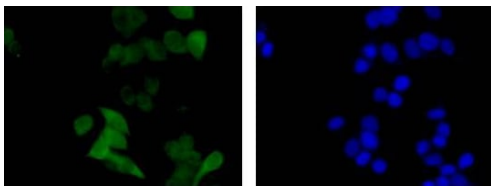
All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 31 kDa

Observed band size: 31 kDa

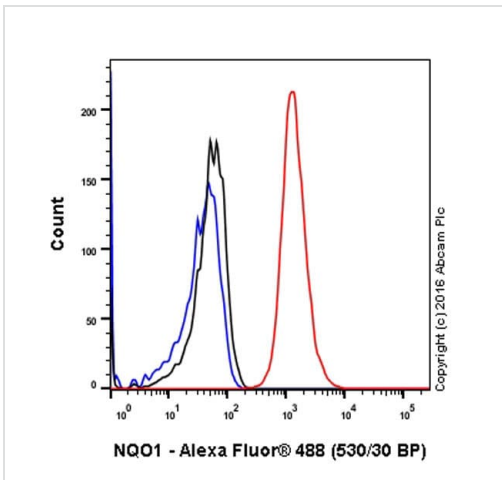
Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.



Immunocytochemistry/ Immunofluorescence - Anti-NQO1 antibody [EPR3309] (ab80588)

Immunocytochemistry/Immunofluorescence analysis of MCF-7 cells labelling NQO1 (green) with purified ab80588 at 1/80. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody. Counterstained with DAPI (blue).

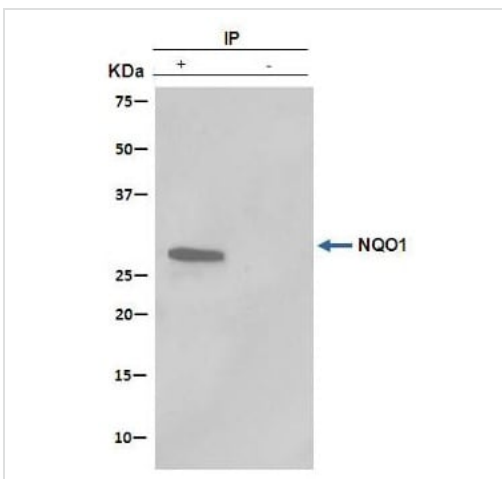


Flow Cytometry - Anti-NQO1 antibody [EPR3309] (ab80588)

ab80588 staining NQO1 in the human cell line MCF-7 (human breast carcinoma) by flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilized with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/20. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

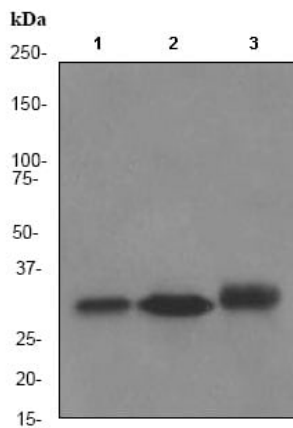


Immunoprecipitation - Anti-NQO1 antibody [EPR3309] (ab80588)

ab80588 (purified) at 1/50 immunoprecipitating NQO1 in HeLa cell lysate (Lane 1). Lane 2 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm /TBST.



Western blot - Anti-NQO1 antibody [EPR3309] (ab80588)

All lanes : Anti-NQO1 antibody [EPR3309] (ab80588) at 1/50000 dilution (unpurified)

Lane 1 : MCF7 cell lysate

Lane 2 : HeLa cell lysate

Lane 3 : A549 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 31 kDa

Observed band size: 31 kDa

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