

# Product Datasheet

## NQO-1 Antibody - BSA Free

### NBP1-31355

Unit Size: 100 ul

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**NBP1-31355**

NQO-1 Antibody - BSA Free

**Product Information**

<b>Unit Size</b>	100 ul
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.025% Proclin 300
<b>Isotype</b>	IgG
<b>Purity</b>	Antigen Affinity-purified
<b>Buffer</b>	PBS (pH 7), 20% Glycerol
<b>Target Molecular Weight</b>	31 kDa

**Product Description**

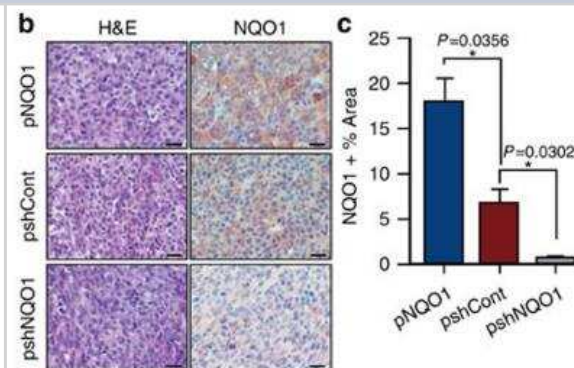
<b>Host</b>	Rabbit
<b>Gene ID</b>	1728
<b>Gene Symbol</b>	NQO1
<b>Species</b>	Human, Mouse, Rat, Monkey
<b>Immunogen</b>	Carrier-protein conjugated synthetic peptide encompassing a sequence within the C-terminus region of human NQO-1. The exact sequence is proprietary.

**Product Application Details**

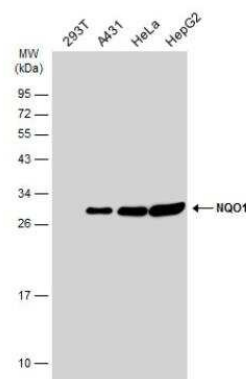
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunocytochemistry/ Immunofluorescence 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000, Knockdown Validated

**Images**

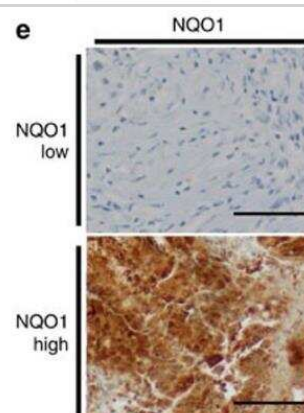
Immunohistochemistry: NQO-1 Antibody [NBP1-31355] - (b) Immunohistochemical analyses of RKO/pNQO1, RKO/shCont, and RKO/pshNQO1 xenograft tumours. The sections were stained for NQO1. Scale bar, 50  $\mu$ m. (c) Quantification of NQO1 in RKO/pNQO1, RKO/shCont and RKO/pshNQO1 xenograft tumours (n=3 each group). n=5 in each tumour. Two-tail t-test. \*P<0.05. All error bars represent the mean  $\pm$  s.e.m. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms13593>) licensed under a CC-BY license.



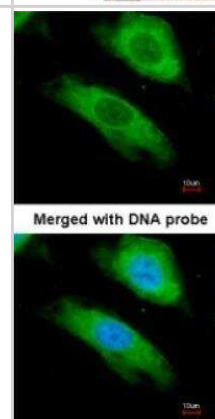
Western Blot: NQO-1 Antibody [NBP1-31355] - Various whole cell extracts (30 ug) were separated by 12% SDS-PAGE, and the membrane was blotted with NQO1 antibody [C2C3], C-term diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody (NBP2-19301) was used to detect the primary antibody.



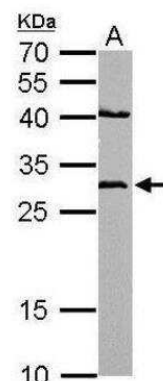
Immunohistochemistry: NQO-1 Antibody [NBP1-31355] - IHC detection of high-level expression of NQO1 (n=11) compared with the low-level expression of NQO1 (n=9). Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms13593>) licensed under a CC-BY license.



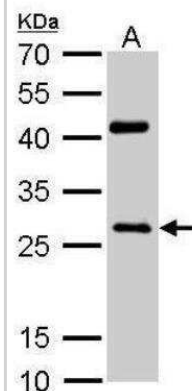
Immunocytochemistry/Immunofluorescence: NQO-1 Antibody [NBP1-31355] - Paraformaldehyde-fixed HeLa, using antibody at 1:200 dilution.



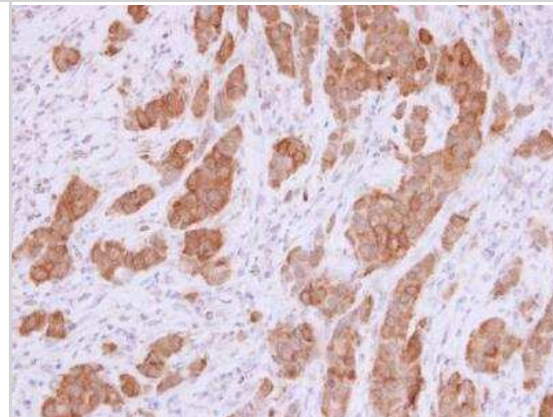
Western Blot: NQO-1 Antibody [NBP1-31355] - A. 50 ug mouse heart lysate/extract 12% SDS-PAGE NQO1 antibody [C2C3], C-term dilution: 1:500 The HRP-conjugated anti-rabbit IgG antibody (NBP2-19301) was used to detect the primary antibody.



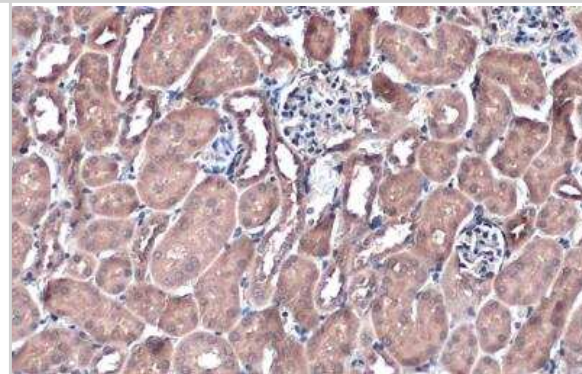
Western Blot: NQO-1 Antibody [NBP1-31355] - A. 50 ug rat heart lysate/extract 12% SDS-PAGE NQO1 antibody [C2C3], C-term (GTX100235) dilution: 1:500 The HRP-conjugated anti-rabbit IgG antibody (NBP2-19301) was used to detect the primary antibody.



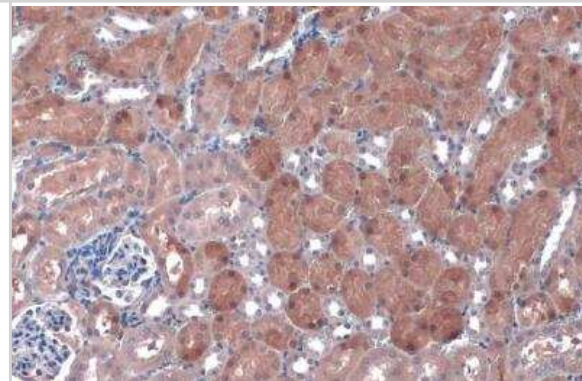
Immunohistochemistry-Paraffin: NQO-1 Antibody [NBP1-31355] - Human rectal carcinoma. NQO1 antibody [C2C3], C-term diluted at 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.



Immunohistochemistry-Paraffin: NQO-1 Antibody [NBP1-31355] - Mouse kidney. NQO1 stained by NQO1 antibody [C2C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.

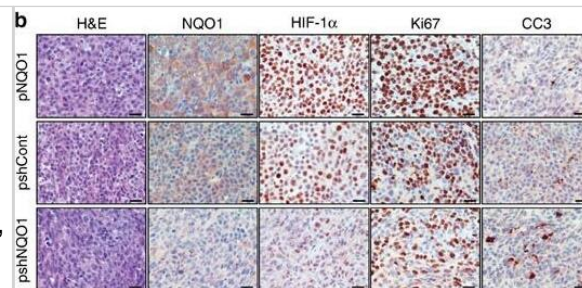


Immunohistochemistry-Paraffin: NQO-1 Antibody [NBP1-31355] - Mouse kidney. NQO1 stained by NQO1 antibody [C2C3], C-term diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.





**Immunohistochemistry: NQO-1 Antibody [NBP1-31355] - NQO1** promotes *in vivo* tumour growth. (a) RKO/pNQO1, RKO/shCont & RKO/pshNQO1 cells injected subcutaneously into right flank of athymic, 7-week-old female BALB/C nude mice, & tumour growth assessed. Tumour volume (TV) calculated by using following formula:  $TV = \text{length} \times (\text{width})^2 \times 0.5$ . Each group contained 12 animals. (\*\* $P < 0.01$  w/ unpaired t-test). (b) Immunohistochemical analyses of RKO/pNQO1, RKO/shCont, & RKO/pshNQO1 xenograft tumours. The sections stained for NQO1, HIF-1 $\alpha$ , proliferation (Ki67) & apoptosis (CC3) using 3,3'-DAB. Scale bar, 50  $\mu\text{m}$ . (c) Quantification of NQO1, proliferative marker Ki67 & apoptotic marker CC3 in RKO/pNQO1, RKO/shCont & RKO/pshNQO1 xenograft tumours ( $n=3$  each group).  $n=5$  in each tumour. Two-tail t-test. \*\* $P < 0.01$ , \* $P < 0.05$ . #, not significant. All error bars represent mean  $\pm$  s.e.m. (d) RKO/pshCont1/pshCont2, RKO/pNQO1/pshCont2 & RKO/pNQO1/pshHIF-1 $\alpha$  injected subcutaneously into right flank of athymic, 7-week-old female BALB/C nude mice, & tumour growth assessed. Tumour volume (TV) calculated by using following formula:  $TV = \text{length} \times (\text{width})^2 \times 0.5$ . Each group contained 10 animals (\* $P < 0.05$  w/ unpaired t-test). (e) Immunohistochemical analyses of RKO/pshCont1/pshCont2, RKO/pNQO1/pshCont2 & RKO/pNQO1/pshHIF-1 $\alpha$  xenograft tumours for HIF-1 $\alpha$ , proliferation (Ki67), apoptosis (CC3) & vasculature (CD34) using 3,3'-DAB. Arrowheads denote blood vessels. Scale bar, 50  $\mu\text{m}$ . (f) RKO/pNQO1/pshCont or RKO/pNQO1/pshHIF-1 $\alpha$  xenograft tumours ( $n=3-5$  each group) quantified for proliferation (Ki67), apoptosis (CC3) & vascularization (CD34).  $n=5$  in each tumour. Two tailed t-test. \*\* $P < 0.01$ , \* $P < 0.05$ . #, not significant. All error bars represent mean  $\pm$  s.e.m. (g) Schematic model showing how NQO1 stabilizes HIF-1 $\alpha$  in cancer cells. Image collected & cropped by CiteAb from following publication (<https://pubmed.ncbi.nlm.nih.gov/27966538>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



## Publications

Oh ET, Kim HG, Kim CH et al. NQO1 regulates cell cycle progression at the G2/M phase Theranostics 2023-01-10 [PMID: 36793872] (Immunohistochemistry-Paraffin, Human)

Oh ET, Kim JW, Kim JM et al. NQO1 inhibits proteasome-mediated degradation of HIF-1 $\alpha$ . Nat Commun. 2016-12-14 [PMID: 27966538] (ICC/IF, Human)



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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBP1-85223PEP	NQO-1 Recombinant Protein Antigen

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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