

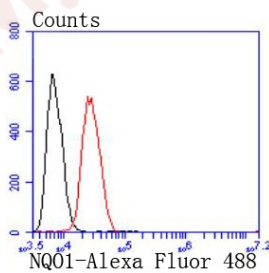
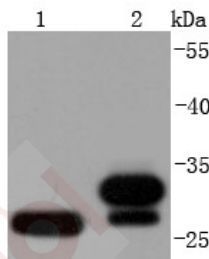
## Anti-NQO1 Antibody (3R649)

### Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 31/27 kDa.
Clone:	3R649
Purification:	ProA affinity purified

### Applications

- Verified Activity:
- Western blot analysis of NQO1 on different lysates using anti-NQO1 antibody at 1/1,000 dilution. Positive control: Lane 1: SH-SY-5Y, Lane 2: Mouse kidney, Lane 3: Raji.
  - Flow cytometric analysis of Hela cells with NQO1 antibody at 1/50 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). Alexa Fluor 488-conjugated goat anti rabbit IgG was used as the secondary antibody.



Application:	FCM,ICC/IF,IP,WB
Recommended	WB: 1:1000-5000; ICC/IF: 1:50-200; IP: 1:50; FCM: 1:50-100

### Properties

- Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
- Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein  
Uniprot ID: P15559  
Synonyms: DIA4;NMOR1;DHQU;NAD(P)H dehydrogenase, quinone 1;DTD;NMORI;QR1

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### Research Background

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 bio-reductive 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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