Human NQO-1 Alexa Fluor® 488-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 844142

Catalog Number: FAB7567G

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NQO-1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human NQO-2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 844142
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human NQO-1 Met1-Lys274 Accession # P15559
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

NQO-1 (NADPH Quinone acceptor Oxidoreductase 1; also DTD and Menadione reductase) is a 30-33 kDa cytoplasmic member of the NAD(P)H dehydrogenase family of enzymes. It is widely expressed, being found in adipocytes, endothelial cells and hepatocytes. NQO-1 serves as a cytoprotective molecule, reducing quinones (atmospheric benzene and esrtrogen compounds) and nitroaromatics without consuming sulfhydryl compounds. It also acts as a backup superoxide scavenger to SOD. NQO-1 reportedly binds and stabilizes key cell protection molecules such as p53, thus acting as a gatekeeper for proteosome-mediated protein turnover. Human NQO-1 is 274 amino acids (aa) in length. It contains an FMN reductase domain (aa 5-212) and two utilized Lys acetylation sites. NQO-1 functions as a noncovalent homodimer. There are three potential at Met22, while two others show a deletion of aa 141-174 and 102-139, respectively. Full length human NQO-1 shares 86% aa sequence identity with mouse NQO-1.

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