

# Nucleoredoxin (D-14): sc-161973

## BACKGROUND

Nucleoredoxin, also known as NXN, NRX or TRG-4, is a 435 amino acid cytoplasmic and nuclear protein that is conserved between mammalian species and acts as a redox-dependent negative regulator of the Wnt signaling pathway. Widely expressed in adult tissues, Nucleoredoxin is also found in the nervous system and the limb buds of embryos at day 10.5-11.5. Containing a conserved thioredoxin (TRX) domain and a catalytic motif for oxidoreductase activity, Nucleoredoxin is implied to function as a transcriptional regulator and may directly stimulate or inhibit PP2A-C $\alpha$  (protein phosphatase 2A). Known to directly interact with Dvl (dishevelled 1) during oxidative stress via its PDZ domain, the gene encoding Nucleoredoxin maps to human chromosome 17p13.3 and mouse chromosome 11 B5.

## CHROMOSOMAL LOCATION

Genetic locus: NXN (human) mapping to 17p13.3; Nxn (mouse) mapping to 11 B5.

## SOURCE

Nucleoredoxin (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nucleoredoxin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161973 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Nucleoredoxin (D-14) is recommended for detection of Nucleoredoxin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Nucleoredoxin (D-14) is also recommended for detection of Nucleoredoxin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Nucleoredoxin siRNA (h): sc-93857, Nucleoredoxin siRNA (m): sc-150094, Nucleoredoxin shRNA Plasmid (h): sc-93857-SH, Nucleoredoxin shRNA Plasmid (m): sc-150094-SH, Nucleoredoxin shRNA (h) Lentiviral Particles: sc-93857-V and Nucleoredoxin shRNA (m) Lentiviral Particles: sc-150094-V.

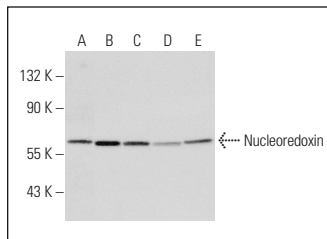
Molecular Weight of Nucleoredoxin: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or HEK293 whole cell lysate: sc-45136.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Nucleoredoxin (D-14): sc-161973. Western blot analysis of Nucleoredoxin expression in HeLa (A), K-562 (B), HEK293 (C), Hep G2 (D) and THP-1 (E) whole cell lysates.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **Nucleoredoxin (E-12): sc-393748**, our highly recommended monoclonal alternative to Nucleoredoxin (D-14).