Nrf3 (L-16): sc-15462

SANTA CRUZ ®

BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nrf3 (nuclear factor (erythroid-derived 2)-like 3, NFE2L3, NF-E2-related factor 3, NRF3) is a transcription factor that influences placental gene expression and development. Nrf3 contains a cap "n" collar (CNC)-type basic leucine zipper (bZIP) domain, and belongs to the CNC gene family. CNC genes play important roles in development, differentiation, oncogenesis and stress signaling. Nrf3 protein is detectable in primary placental cytotrophoblasts. The human chorio-carcinoma cell lines BeWo and JAR from trophoblastic tumors of the placenta express Nrf3 transcripts. Nrf3/MAFG heterodimers recognize nuclear factor-erythroid 2/Maf recognition element-type DNA-binding motifs. Keratinocyte growth factor (KGF)-regulates Nrf3-dependent gene expression during cutaneous wound repair.

CHROMOSOMAL LOCATION

Genetic locus: NFE2L3 (human) mapping to 7p15.2; Nfe2l3 (mouse) mapping to 6 B3.

SOURCE

Nrf3 (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Nrf3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15462 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-15462 X, 200 µg/0.1 ml.

APPLICATIONS

Nrf3 (L-16) is recommended for detection of Nrf3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Nrf3 (L-16) is also recommended for detection of Nrf3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Nrf3 siRNA (h): sc-38107, Nrf3 siRNA (m): sc-38108, Nrf3 shRNA Plasmid (h): sc-38107-SH, Nrf3 shRNA Plasmid (m): sc-38108-SH, Nrf3 shRNA (h) Lentiviral Particles: sc-38107-V and Nrf3 shRNA (m) Lentiviral Particles: sc-38108-V.

Nrf3 (L-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Nrf3: 73 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802, Raji whole cell lysate or U-937 cell lysate: sc-2239.

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) Immunoprecip-itation: 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
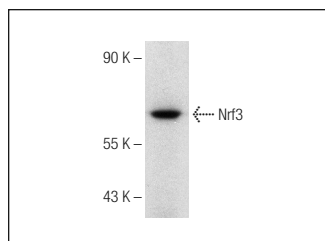
Nrf3 (L-16): sc-15462. Western blot analysis of Nrf3 expression in Raji whole cell lysate.
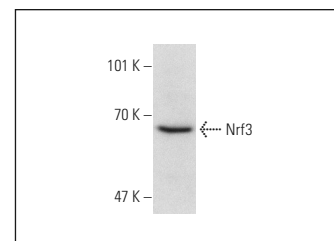
Nrf3 (L-16): sc-15462. Western blot analysis of Nrf3 expression in J774.A1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhang, Y., et al. 2009. The Nrf3 transcription factor is a membrane-bound glycoprotein targeted to the endoplasmic reticulum through its N-terminal homology box 1 sequence. J. Biol. Chem. 284: 3195-3210.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.