

# NOC3L (N-14): sc-161950

## BACKGROUND

GADD 153, a growth arrest and DNA damage-inducible gene, encodes a C/EBP-related nuclear protein. This protein has also been designated C/EBP-homologous protein (CHOP-10 or C/EBP  $\zeta$ ). GADD 153 expression is induced by a variety of cellular stresses, inducing nutrient deprivation and metabolic perturbations. GADD 153 functions to block cells in G<sub>1</sub> to S phase during cell cycle progression and acts by dimerizing with other C/EBP proteins to direct GADD 153 dimers away from "classical" C/EBP binding sites, recognizing instead unique "nonclassical" sites. Thus, GADD 153 acts as a negative modulator of C/EBP-like proteins in certain terminally differentiated cells. GADD 153 belongs to the CBF/MAK21 family, which also includes NOC2L, NOC3L and NOC4L. NOC3L, also designated factor for adipocyte differentiation 24 or Fad24, promotes adipogenesis by controlling DNA replication during the early stages of mitotic clonal expansion (MCE).

## REFERENCES

- Sherr, C.J. 1994. G<sub>1</sub> phase progression: cycling on cue. *Cell* 79: 551-555.
- Ron, D. 1994. Inducible growth arrest: new mechanistic insights. *Proc. Natl. Acad. Sci. USA* 91: 1985-1986.
- Smith, M.L., et al. 1994. Interaction of the p53-regulated protein GADD 45 with proliferating cell nuclear antigen. *Science* 266: 1376-1380.
- Gujuluva, C.N., et al. 1994. Effect of UV-irradiation on cell cycle, viability and the expression of p53, GADD 153 and GADD 45 genes in normal and HPV-immortalized human oral keratinocytes. *Oncogene* 9: 1819-1827.
- Zhan, Q., et al. 1994. The GADD and MyD genes define a novel set of mammalian genes encoding acidic proteins that synergistically suppress cell growth. *Mol. Cell. Biol.* 14: 2361-2371.
- Su, Z.Z., et al. 1997. Subtraction hybridization identifies a transformation progression associated-gene PEG-3 with sequence homology to a growth arrest and DNA damage-inducible gene. *Proc. Natl. Acad. Sci. USA* 94: 9125-9130.

## CHROMOSOMAL LOCATION

Genetic locus: NOC3L (human) mapping to 10q23.33; Noc3l (mouse) mapping to 19 C3.

## SOURCE

NOC3L (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NOC3L 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-161950 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

NOC3L (N-14) is recommended for detection of NOC3L of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NOC3L (N-14) is also recommended for detection of NOC3L in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NOC3L siRNA (h): sc-90354, NOC3L siRNA (m): sc-150016, NOC3L shRNA Plasmid (h): sc-90354-SH, NOC3L shRNA Plasmid (m): sc-150016-SH, NOC3L shRNA (h) Lentiviral Particles: sc-90354-V and NOC3L shRNA (m) Lentiviral Particles: sc-150016-V.

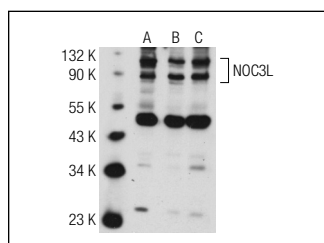
Molecular Weight of NOC3L: 93 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or SK-N-MC cell lysate: sc-2237.

## 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) 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



NOC3L (N-14): sc-161950. Western blot analysis of NOC3L expression in HeLa (A), PC-3 (B) and SK-N-MC (C) 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.