

# NELL1 (S-15): sc-240729

## BACKGROUND

NELL1 (NEL-like 1), also known as NRP1 or IDH3GL (NAD<sup>+</sup>-dependent isocitrate dehydrogenase 3  $\gamma$ -like), is an 810 amino acid secreted protein that contains one TSP N-terminal domain, 5 VWFC domains and 6 EGF-like domains. Expressed in craniofacial anomalies, NELL1 exists as a homotrimer that interacts with PKC  $\beta$  and is involved in the regulation of cell growth and differentiation. Human NELL1 shares 50% amino acid identity with its chicken counterpart, suggesting that NELL1 may have a conserved role between species. The gene encoding NELL1 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, Hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

## REFERENCES

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3. Luce, M.J., et al. 1999. The neuronal EGF-related genes NELL1 and NELL2 are expressed in hemopoietic cells and developmentally regulated in the B lineage. *Gene* 231: 121-126.
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5. Maeda, K., et al. 2001. Brain specific human genes, NELL1 and NELL2, are predominantly expressed in neuroblastoma and other embryonal neuroepithelial tumors. *Neurol. Med. Chir.* 41: 582-588.
6. Okamoto, K., et al. 2003. Identification of NAD<sup>+</sup>-dependent isocitrate dehydrogenase 3  $\gamma$ -like (IDH3GL) gene and its genetic polymorphisms. *Gene* 323: 141-148.
7. Jin, Z., et al. 2007. Hypermethylation of the nel-like 1 gene is a common and early event and is associated with poor prognosis in early-stage esophageal adenocarcinoma. *Oncogene* 26: 6332-6340.
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## CHROMOSOMAL LOCATION

Genetic locus: NELL1 (human) mapping to 11p15.1; Nell1 (mouse) mapping to 7 B5.

## SOURCE

NELL1 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NELL1 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-240729 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

NELL1 (S-15) is recommended for detection of NELL1 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); non cross-reactive with NELL2.

NELL1 (S-15) is also recommended for detection of NELL1 in additional species, including equine and canine.

Suitable for use as control antibody for NELL1 siRNA (h): sc-96693, NELL1 siRNA (m): sc-149910, NELL1 shRNA Plasmid (h): sc-96693-SH, NELL1 shRNA Plasmid (m): sc-149910-SH, NELL1 shRNA (h) Lentiviral Particles: sc-96693-V and NELL1 shRNA (m) Lentiviral Particles: sc-149910-V.

Molecular Weight of NELL1: 90 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## TORAGE

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](http://www.scbt.com) or our catalog for detailed protocols and support products.