

NOR-1 (C-19): sc-22519

BACKGROUND

Nur77 (also designated NGFI-B), Nur1 (Nur-related factor 1) and NOR-1 (neuron-derived orphan receptor-1) constitute the NGFI-B subfamily within the nuclear receptor superfamily. Ligands for these proteins have not been identified, and, therefore, they are designated "orphan nuclear receptors". Genes of the NGFI-B subfamily are classified as immediate-early genes, which are induced rapidly, but transiently, in response to a variety of stimuli. They have been implicated in cell proliferation, differentiation and apoptosis. The human NOR-1 gene maps to chromosome 9q and encodes a protein which is expressed in heart, skeletal muscle, thymus and spleen as well as in brain, where it is developmentally regulated. Therefore, NOR-1 may be involved in regulating neural differentiation. The NOR-1 gene also undergoes chromosomal translocation with the EWS gene to produce a protein thought to affect pre-mRNA splicing.

REFERENCES

- Ohkura, N., et al. 1996. Structure, mapping and expression of a human NOR-1 gene, the third member of the Nur77/NGFI-B family. *Biochim. Biophys. Acta* 1308: 205-214.
- Ohkura, N., et al. 1996. Antisense oligonucleotide to NOR-1, a novel orphan nuclear receptor, induces migration and neurite extension of cultured forebrain cells. *Brain Res. Mol. Brain Res.* 35: 309-313.
- Maruyama, K., et al. 1997. Expression of the putative transcription factor NOR-1 in the nervous, the endocrine and the immune systems and the developing brain of the rat. *Neuroendocrinology* 65: 2-8.
- Maruyama, K., et al. 1998. The NGFI-B subfamily of the nuclear receptor superfamily (review). *Int. J. Oncol.* 12: 1237-1243.

CHROMOSOMAL LOCATION

Genetic locus: NR4A3 (human) mapping to 9q22.33; Nr4a3 (mouse) mapping to 4 B1.

SOURCE

NOR-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NOR-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-22519 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-22519 P, (100 µg 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.

RESEARCH USE

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

APPLICATIONS

NOR-1 (C-19) is recommended for detection of NOR-1 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).

NOR-1 (C-19) is also recommended for detection of NOR-1 in additional species, including porcine.

Suitable for use as control antibody for NOR-1 siRNA (h): sc-38842, NOR-1 siRNA (m): sc-38843, NOR-1 shRNA Plasmid (h): sc-38842-SH, NOR-1 shRNA Plasmid (m): sc-38843-SH, NOR-1 shRNA (h) Lentiviral Particles: sc-38842-V and NOR-1 shRNA (m) Lentiviral Particles: sc-38843-V.

NOR-1 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of NOR-1: 68 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

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.

SELECT PRODUCT CITATIONS

- Yoo, Y.G., et al. 2006. 6-Mercaptopurine, an activator of Nur77, enhances transcriptional activity of HIF-1α resulting in new vessel formation. *Oncogene* 26: 3823-3834.
- Hiromura, M., et al. 2006. Identification of nerve growth factor-responsive element of the TCL1 promoter as a novel negative regulatory element. *J. Biol. Chem.* 281: 27753-27764.
- Pearen, M.A., et al. 2008. The orphan nuclear receptor, NOR-1, a target of β-adrenergic signaling, regulates gene expression that controls oxidative metabolism in skeletal muscle. *Endocrinology* 149: 2853-2865.

PROTOCOLS

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



Try **NOR-1 (H-7): sc-393902** or **NOR-1 (F-10): sc-393903**, our highly recommended monoclonal alternatives to NOR-1 (C-19).