

Nurr1 (h): 293T Lysate: sc-158785

BACKGROUND

Nurr1 (Nur-related factor 1) and Nur77 (also designated NGFI-B) encode orphan nuclear receptors which may comprise an additional subfamily within the nuclear receptor superfamily. The rat and human homologs of mouse Nurr1 are designated RNR1 and NOT, respectively. Both NURR1 and Nur77 are growth factor inducible immediate early response genes. Induction of both Nurr1 and Nur77 is seen after membrane depolarization while only Nur77 induction is seen with NGF stimulation. JunD acts as a mediator for Nur77. An increase in Nur77 expression is seen in activated T cells during G₀ to G₁ transition and throughout the G₁ phase. In addition to its function as an immediate early gene, Nur77 may play a role in TCR-mediated apoptosis. Cyclosporin A, a potent immunosuppressant, has been shown to inhibit the ability of Nur77 to bind DNA. A dominant negative form of Nur77 can protect T cell hybridomas from activation-induced apoptosis. However, the absolute requirement of Nur77 for TCR-mediated apoptosis is still under debate.

REFERENCES

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4. Yoon, J.K., et al. 1994. Involvement of JunD in transcriptional activation of the orphan receptor gene Nur77 by nerve growth factor and membrane depolarization in PC12 cells. *Mol. Cell. Biol.* 14: 7731-7743.
5. Garcia, I., et al. 1994. Induction of NGFI-B gene expression during T cell activation. Role of protein phosphatases. *J. Immunol.* 153: 3417-3425.
6. Winoto, A. 1994. Molecular characterization of the Nur77 orphan steroid receptor in apoptosis. *Int. Arch. Allergy Immunol.* 105: 344-346.
7. Lee, S.L., et al. 1995. Unimpaired thymic and T cell death in mice lacking the nuclear receptor NGFI-B (Nur77). *Science* 269: 532-535.
8. Bassett, M.H., et al. 2004. A role for the NGFI-B family in adrenal zonation and adrenocortical disease. *Endocr Res.* 30:567-574
9. Maheux, J., et al. 2005. Induction patterns of transcription factors of the Nur family (Nurr1, Nur77, and NOR-1) by typical and atypical antipsychotics in the mouse brain: implication for their mechanism of action. *J. Pharmacol. Exp. Ther.* 313: 460-473.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: NR4A2 (human) mapping to 2q24.1.

PRODUCT

Nurr1 (h): 293T Lysate represents a lysate of human Nurr1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Nurr1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Nurr1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

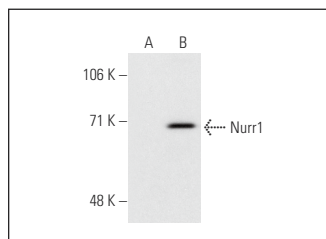
Nurr1 (447C2a): sc-81345 is recommended as a positive control antibody for Western Blot analysis of enhanced human Nurr1 expression in Nurr1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Nurr1 (447C2a): sc-81345. Western blot analysis of Nurr1 expression in non-transfected: sc-117752 (A) and human Nurr1 transfected: sc-158785 (B) 293T whole cell lysates.

RESEARCH USE

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