SANTA CRUZ BIOTECHNOLOGY, INC.

Nur77 (m): 293T Lysate: sc-122180

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 G_0/G_1 transition and throughout the G_1 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

1. Law, S.W., et al. 1992. Identification of a new brain-specific transcription factor, NURR1. Mol. Endocrin. 6: 2129-2135.
2. Mages, H.W., et al. 1994. NOT, a human immediate-early response gene closely related to the steroid/thyroid hormone receptor NAK1/TR3. Mol. Endocrin. 8: 1583-1591.
3. Davis, I.J., et al. 1994. Endocrine and neuro-genic regulation of the orphan nuclear receptors Nur77 and Nurr-1 in the adrenal glands. Mol. Cell. Biol. 14: 3469-3483.
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. Intl. Arch. All. 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.

CHROMOSOMAL LOCATION

Genetic locus: Nr4a1 (mouse) mapping to 15 F2.

PRODUCT

Nur77 (m): 293T Lysate represents a lysate of mouse Nur77 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

RESEARCH USE

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

APPLICATIONS

Nur77 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Nur77 antibodies. Recommended use: 10-20 µl per lane.

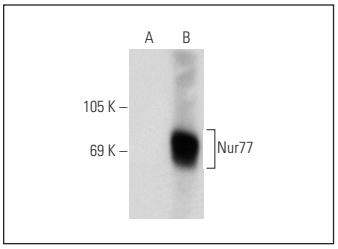
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Nur77 (E-6): sc-166166 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Nur77 expression in Nur77 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



Nur77 (E-6): sc-166166. Western blot analysis of Nur77 expression in non-transfected: sc-117752 (**A**) and mouse Nur77 transfected: sc-122180 (**B**) 293T whole cell lysates.

PROTOCOLS

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