SANTA CRUZ BIOTECHNOLOGY, INC.

Nur77 (C-5): sc-365113

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.

CHROMOSOMAL LOCATION

Genetic locus: NR4A1 (human) mapping to 12q13.13; Nr4a1 (mouse) mapping to 15 F2.

SOURCE

Nur77 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 4-31 at the N-terminus of Nur77 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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-365113 X, 200 µg/0.1 ml.

Nur77 (C-5) is available conjugated to agarose (sc-365113 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365113 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365113 PE), fluorescein (sc-365113 FITC), Alexa Fluor® 488 (sc-365113 AF488), Alexa Fluor® 546 (sc-365113 AF546), Alexa Fluor® 594 (sc-365113 AF594) or Alexa Fluor® 647 (sc-365113 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365113 AF680) or Alexa Fluor® 790 (sc-365113 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365113 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Nur77 (C-5) is recommended for detection of Nur77 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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). Nur77 (C-5) is also recommended for detection of Nur77 in additional species, including bovine.

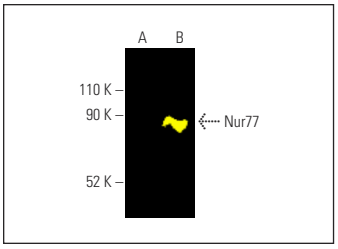
Suitable for use as control antibody for Nur77 siRNA (h): sc-36109, Nur77 siRNA (m): sc-36110, Nur77 siRNA (r): sc-108068, Nur77 shRNA Plasmid (h): sc-36109-SH, Nur77 shRNA Plasmid (m): sc-36110-SH, Nur77 shRNA Plasmid (r): sc-108068-SH, Nur77 shRNA (h) Lentiviral Particles: sc-36109-V, Nur77 shRNA (m) Lentiviral Particles: sc-36110-V and Nur77 shRNA (r) Lentiviral Particles: sc-108068-V.

Nur77 (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

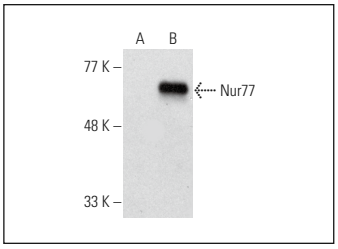
Molecular Weight of Nur77: 64 kDa.

Positive Controls: Nur77 (h2): 293 Lysate: sc-112240 or SK-N-MC cell lysate: sc-2237.

DATA



Nur77 (C-5): sc-365113. Fluorescent western blot analysis of Nur77 expression in non-transfected: sc-110760 (**A**) and human Nur77 transfected: sc-112240 (**B**) 293 whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG_1 BP-CFL 488: sc-533661.



Nur77 (C-5) HRP: sc-365113 HRP. Direct western blot analysis of Nur77 expression in non-transfected: sc-110760 (**A**) and human Nur77 transfected: sc-112240 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yang, W., et al. 2017. Exploring the mechanism of WWOX growth inhibitory effects on oral squamous cell carcinoma. Oncol. Lett. 13: 3198-3204.
2. Ping, F., et al. 2021. Cx32 inhibits the autophagic effect of Nur77 in SH-SY5Y cells and rat brain with ischemic stroke. Aging 13: 22188-22207.
3. Song, M.Y., et al. 2022. Sirt6 reprograms myofibers to oxidative type through CREB-dependent Sox6 suppression. Nat. Commun. 13: 1808.
4. Sheng, M., et al. 2023. Caspase 6/NR4A1/SOX9 signaling axis regulates hepatic inflammation and pyroptosis in ischemia-stressed fatty liver. Cell Death Discov. 9: 106.

RESEARCH USE

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