

p-Nur77 (Ser 341): sc-16991

BACKGROUND

Nur77 (also designated nuclear receptor subfamily 4, group A, member 1, HMR, N10, TR3, NP10, GFRP1, NAK-1, NGFIB) encodes a member of the steroid-thyroid hormone-retinoid receptor superfamily. Expression is induced by phytohemagglutinin in human lymphocytes and by serum stimulation of arrested fibroblasts. The encoded protein acts as a nuclear transcription factor. Translocation of Nur77 from the nucleus to mitochondria induces apoptosis. An increase in Nur77 expression occurs in activated T cells during the 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. Akt-dependent phosphorylation of Nur77 on Ser 341 and Ser 351 can occur in a phosphatidylinositol 3-kinase-dependent manner, and causes a decrease in Nur77 DNA-binding activity.

REFERENCES

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- Dequiedt, F., et al. 2005. Phosphorylation of histone deacetylase 7 by protein kinase D mediates T cell receptor-induced Nur77 expression and apoptosis. *J. Exp. Med.* 201: 793-804.

CHROMOSOMAL LOCATION

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

SOURCE

p-Nur77 (Ser 341) is available as either goat (sc-16991) or rabbit (sc-16991-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing phosphorylated Ser 341 of Nur77 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.

Blocking peptide available for competition studies, sc-16991 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-Nur77 (Ser 341) is recommended for detection of Ser 341 phosphorylated Nur77 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

p-Nur77 (Ser 341)-R is also recommended for detection of correspondingly phosphorylated Ser on Nur77 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Nur77 siRNA (h): sc-36109, Nur77 siRNA (m): sc-36110, Nur77 siRNA (r): sc-108068, Nur77 siRNA (h2): sc-156146Nur77 shRNA Plasmid (h): sc-36109-SH, Nur77 shRNA Plasmid (m): sc-36110-SH, Nur77 shRNA Plasmid (r): sc-108068-SH, Nur77 shRNA Plasmid (h2): sc-156146-SHNur77 shRNA (h) Lentiviral Particles: sc-36109-V, Nur77 shRNA (m) Lentiviral Particles: sc-36110-V, Nur77 shRNA (r) Lentiviral Particles: sc-108068-V and Nur77 shRNA (h2) Lentiviral Particles: sc-156146-V.

Molecular Weight of Nur77: 64 kDa.

SELECT PRODUCT CITATIONS

- Lim, S., et al. 2007. Distinct mechanisms involving diverse histone deacetylases repress expression of the two gonadotropin β-subunit genes in immature gonadotropes, and their actions are overcome by gonadotropin-releasing hormone. *Mol. Cell. Biol.* 27: 4105-4120.

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.