SANTA CRUZ BIOTECHNOLOGY, INC.

Jun D (329): sc-74

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The activator protein-1 (AP-1) transcription factor consists of either Jun/Jun homodimers or Fos/Jun heterodimeric complexes. Homo- and heterodimers bind to the TGACTCA consensus sequence present in numerous promoters and initially identified as the phorbol ester tumor promoter response element (TRE). Jun B and Jun D have been shown to be almost identical to c-Jun in their C-terminal regions, which are involved in dimerization and DNA binding, whereas their N-terminal domains, which are involved in transcriptional activation, diverge. All three form heterodimers among themselves and with c-Fos and other members of the Fos gene family. Studies suggest that the two forms of Jun D may be due to internal initiation of translation.

CHROMOSOMAL LOCATION

Genetic locus: JUND (human) mapping to 19p13.11; Jund (mouse) mapping to 8 B3.3.

SOURCE

Jun D (329) is available as either rabbit (sc-74) or goat (sc-74-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of Jun D of mouse 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-74 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-74 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Jun D (329) is recommended for detection of Jun D 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Jun D (329) is also recommended for detection of Jun D in additional species, including canine, bovine and avian.

Suitable for use as control antibody for Jun D siRNA (h): sc-35728, Jun D siRNA (m): sc-35729, Jun D shRNA Plasmid (h): sc-35728-SH, Jun D shRNA Plasmid (m): sc-35729-SH, Jun D shRNA (h) Lentiviral Particles: sc-35728-V and Jun D shRNA (m) Lentiviral Particles: sc-35729-V.

Jun D (329) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

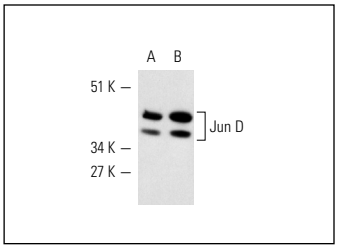
Molecular Weight of Jun D isoforms: 35/40 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138 or NIH/3T3 + PMA nuclear extract: sc-2125.

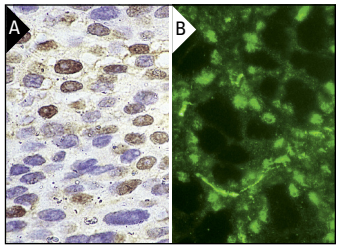
STORAGE

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

DATA



Jun D (329): sc-74. Western blot analysis of Jun D expression in untreated (**A**) and phorbol ester-induced (**B**) NIH/3T3 nuclear extracts.



Jun D (329): sc-74. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon carcinoma tissue (**A**) and immunofluorescence staining of normal mouse intestine frozen section (**B**) showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Agarwal, S.K., et al. 1999. Menin interacts with the AP1 transcription factor Jun D and represses Jun D-activated transcription. Cell 96: 143-152.
2. Zachos, G., et al. 1999. Herpes simplex virus type 1 infection stimulates p38/c-Jun N-terminal mitogen-activated protein kinase pathways and activates transcription factor AP-1. J. Biol. Chem. 274: 5097-5103.
3. Lappas, M., et al. 2011. MAPK and AP-1 proteins are increased in term pre-labour fetal membranes overlying the cervix: regulation of enzymes involved in the degradation of fetal membranes. Placenta 32: 1016-1025.
4. Landreville, S., et al. 2011. Suppression of α5 gene expression is closely related to the tumorigenic properties of uveal melanoma cell lines. Pigment Cell Melanoma Res. 24: 643-655.
5. Tullai, J.W., et al. 2011. AP-1 is a component of the transcriptional network regulated by GSK-3 in quiescent cells. PLoS ONE 6: e20150.
6. Li, Z., et al. 2011. cAMP and fibroblast growth factor 2 regulate bone sialoprotein gene expression in human prostate cancer cells. Gene 471: 1-12.
7. Kim, J., et al. 2012. *In vivo* regulation of the heme oxygenase-1 gene in humanized transgenic mice. Kidney Int. 82: 278-291.
8. del Blanco, B., et al. 2012. Tcra enhancer activation by inducible transcription factors downstream of pre-TCR signaling. J. Immunol. 188: 3278-3293.

RESEARCH USE

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