SANTA CRUZ BIOTECHNOLOGY, INC.

p-Jun D (Ser 255): sc-101726

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.

REFERENCES

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2. Ryder, K., et al. 1988. Induction of proto-oncogene c-Jun by serum growth factors. Proc. Natl. Acad. Sci. USA 85: 8464-8467.
3. Cohen, D.R., et al. 1989. The product of a Fos-related gene, Fra-1, binds cooperatively to the AP-1 site with Jun: transcription factor AP-1 is comprised of multiple protein complexes. Genes Dev. 3: 173-184.
4. Hirai, S.I., et al. 1989. Characterization of Jun D: a new member of the Jun proto-oncogene family. EMBO J. 8: 1433-1439.
5. Ryder, K., et al. 1989. Jun D: a third member of the Jun gene family. Proc. Natl. Acad. Sci. USA 86: 1500-1503.
6. Vogt, P.K., et al. 1990. Jun: oncogene and transcription factor. Adv. Cancer Res. 55: 1-35.
7. Castellazzi, M., et al. 1991. Overexpression of c-Jun, Jun B, or Jun D affects cell growth differently. Proc. Natl. Acad. Sci. USA 88: 8890-8894.
8. Lallemand, D., et al. 1997. Variations in Jun and Fos protein expression and AP-1 activity in cycling, resting and stimulated fibroblasts. Oncogene 14: 819-830.
9. Weitzman, J.B., et al. 2000. Jun D protects cells from p53-dependent senescence and apoptosis. Mol. Cell 6: 1109-1119.

CHROMOSOMAL LOCATION

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

SOURCE

p-Jun D (Ser 255) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 255 of Jun D of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

p-Jun D (Ser 255) is recommended for detection of Ser 255 phosphorylated 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 and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Jun D siRNA (h): sc-35728 and Jun D siRNA (m): sc-35729.

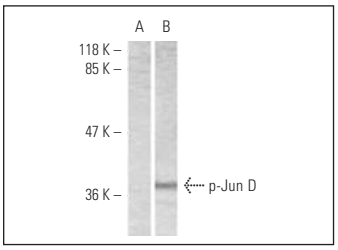
Molecular Weight of p-Jun D isoforms: 35/40 kDa.

Positive Controls: Forskolin-treated 293 whole cell lysate or human breast carcinoma tissue.

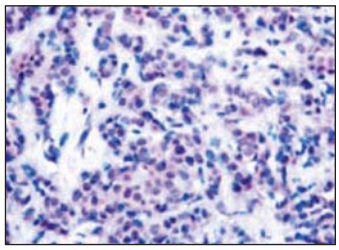
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-Jun D (Ser 255): sc-101726. Western blot analysis of phosphorylated p-Jun D expression in untreated (**A**) and Forskolin-treated (**B**) 293 whole cell lysates.



p-Jun D (Ser 255): sc-101726. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear localization.

RESEARCH USE

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