SANTA CRUZ BIOTECHNOLOGY, INC.

Jun D (D-9): sc-271938

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

1. Curran, T., et al. 1988. Fos and Jun: the AP-1 connection. Cell 55: 395-397.
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.

CHROMOSOMAL LOCATION

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

SOURCE

Jun D (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 316-341 at the C-terminus of Jun D of mouse 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-271938 X, 200 µg/0.1 ml.

Jun D (D-9) is available conjugated to agarose (sc-271938 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271938 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271938 PE), fluorescein (sc-271938 FITC), Alexa Fluor® 488 (sc-271938 AF488), Alexa Fluor® 546 (sc-271938 AF546), Alexa Fluor® 594 (sc-271938 AF594) or Alexa Fluor® 647 (sc-271938 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271938 AF680) or Alexa Fluor® 790 (sc-271938 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271938 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Jun D (D-9) is recommended for detection of Jun D 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), 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 (D-9) is also recommended for detection of Jun D in additional species, including bovine.

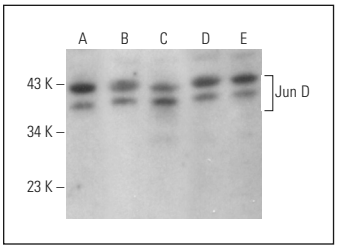
Suitable for use as control antibody for Jun D siRNA (h): sc-35728, Jun D siRNA (m): sc-35729, Jun D shRNA Plasmid (h): sc-35728-SH, Jun D shRNA Plasmid (m): sc-35729-SH, Jun D shRNA (h) Lentiviral Particles: sc-35728-V and Jun D shRNA (m) Lentiviral Particles: sc-35729-V.

Jun D (D-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

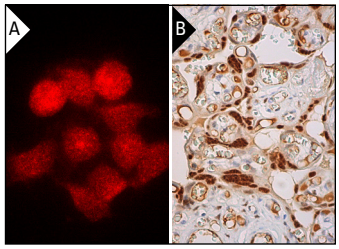
Molecular Weight of Jun D isoforms: 35/40 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, C2C12 whole cell lysate: sc-364188 or A-10 cell lysate: sc-3806.

DATA



Jun D (D-9): sc-271938. Western blot analysis of Jun D expression in SK-MEL-24 (**A**), Sol8 (**B**), C2C12 (**C**), A-10 (**D**) and PC-12 (**E**) whole cell lysates.



Jun D (D-9): sc-271938. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of trophoblastic cells (**B**).

SELECT PRODUCT CITATIONS

1. Plotnik, J.P., et al. 2014. ETS1 is a genome-wide effector of Ras/ERK signaling in epithelial cells. Nucleic Acids Res. 42: 11928-11940.
2. Ugbode, C., et al. 2020. JNK signalling regulates antioxidant responses in neurons. Redox Biol. 37: 101712.
3. Verma, M., et al. 2021. The molecular and epigenetic mechanisms of innate lymphoid cell (ILC) memory and its relevance for asthma. J. Exp. Med. 218: e20201354.
4. Suphakhong, K., et al. 2022. m^6A RNA methylation regulates the transcription factors JUN and JUNB in TGF-β-induced epithelial-mesenchymal transition of lung cancer cells. J. Biol. Chem. 298: 102554.

RESEARCH USE

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