

JDP2 (N-16): sc-23456

BACKGROUND

c-Jun dimerization protein (JDP) 2 binds cAMP-response element (CRE) as a homodimer or as a heterodimer with ATF-2 and c-Jun. This dimerization allows JDP2 to repress CRE-dependent transcription. JDP2 is phosphorylated by c-Jun N-terminal kinase at Thr 138. JDP2 contains a basic leucine zipper (bZIP) region for DNA-binding. The bZIP region of JDP2 interacts with the DNA-binding domain (DBD) of progesterone receptor (PR) in mammalian cells. Two other coactivators, creb binding protein (CBP) and p300 CBP-associated factor (PCAF), also associate with JDP2. Thus, JDP2 appears to stimulate the N-terminal activation function domain of PR by docking to the DBD and facilitation PR interaction with other coactivators. The expression of JDP2 in PR-targeted tissues and cells supports the role for JDP2 in PR function. In addition, JDP2 may play an important role in controlling the commitment of F9 embryonal carcinoma cells to differentiation. In undifferentiated F9 cells, JDP2 recruits HDAC3 and binds the differentiation response element within the c-jun promoter. Retinoic acid-induction replaces the JDP2/HDAC3 complex with PCAF and subsequently allows the transcription of c-Jun for F9 differentiation. The gene encoding human JDP2 maps to chromosome 14q24.3.

REFERENCES

- Jin, C., Ugai, H., Song, J., Murata, T., Nili, F., Sun, K., Horikoshi, M. and Yokoyama, K.K. 2001. Identification of mouse Jun dimerization protein 2 as a novel repressor of ATF-2. *FEBS Lett.* 489: 34-41.
- Piu, F., Aronheim, A., Katz, S. and Karin, M. 2001. AP-1 repressor protein JDP-2: inhibition of UV-mediated apoptosis through p53 down-regulation. *Mol. Cell. Biol.* 21: 3012-3024.
- Jin, C., Li, H., Murata, T., Sun, K., Horikoshi, M., Chiu, R. and Yokoyama, K.K. 2002. JDP2, a repressor of AP-1, recruits a histone deacetylase 3 complex to inhibit the retinoic acid-induced differentiation of F9 cells. *Mol. Cell. Biol.* 22: 4815-4826.
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- LocusLink Report (LocusID: 122953). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: JDP2 (human) mapping to 14q24.3; Jdp2 (mouse) mapping to 12 D2.

SOURCE

JDP2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of JDP2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-23456 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-23456 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

JDP2 (N-16) is recommended for detection of JDP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

JDP2 (N-16) is also recommended for detection of JDP2 in additional species, including equine.

Suitable for use as control antibody for JDP2 siRNA (h): sc-38017, JDP2 siRNA (m): sc-38018, JDP2 shRNA Plasmid (h): sc-38017-SH, JDP2 shRNA Plasmid (m): sc-38018-SH, JDP2 shRNA (h) Lentiviral Particles: sc-38017-V and JDP2 shRNA (m) Lentiviral Particles: sc-38018-V.

JDP2 (N-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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



Try **JDP2 (3C1): sc-517133**, our highly recommended monoclonal alternative to JDP2 (N-16).