SANTA CRUZ BIOTECHNOLOGY, INC.

JAB1 (B-7): sc-13157



BACKGROUND

Genes belonging to the Jun and Fos oncogene families encode nuclear proteins that are found to be associated with a number of transcriptional complexes. The c-Jun protein is a major component of the transcription factor AP-1, originally shown to mediate phorbol ester tumor promoter (TPA)-induced expression of responsive genes through the TPA-response element (TRE). The Jun proteins form homo- and heterodimers which bind the TRE, but the Fos proteins are active only as heterodimers with any of the Jun proteins. Fos/Jun heterodimers have a much higher affinity for the TRE than Jun homo-dimers. Ha-Ras augments c-Jun activity and stimulates phosphorylation of its activation domain. The co-activator of Jun, designated JAB1 (for Jun-activation domain-binding protein), interacts with c-Jun and Jun D, but not with Jun B or v-Jun. This interaction enhances the transactivating ability of Jun proteins by stabilizing their binding to the TRE.

REFERENCES

- 1. Sambucetti, L.C., et al. 1986. The fos protein complex is associated with DNA in isolated nuclei and binds to DNA cellulose. Science 234: 1417-1419.
- 2. ohmann, D., et al. 1987. Human proto-oncogene c-jun encodes a DNA binding protein with structural and functional properties of transcription factor AP-1. Science 238: 1386-1392.
- 3. Distel, R.J., et al. 1987. Nucleoprotein complexes that regulate gene expression in adipocyte differentiation: direct participation of c-Fos. Cell 49: 835-844.

CHROMOSOMAL LOCATION

Genetic locus: COPS5 (human) mapping to 8q13.1; Cops5 (mouse) mapping to 1 A2.

SOURCE

JAB1 (B-7) is a mouse monoclonal antibody raised against amino acids 1-334 of JAB1 (Jun-activated domain-binding protein 1) of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} 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-13157 X, 200 μ g/0.1 ml.

JAB1 (B-7) is available conjugated to agarose (sc-13157 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13157 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13157 PE), fluorescein (sc-13157 FITC), Alexa Fluor[®] 488 (sc-13157 AF488), Alexa Fluor[®] 546 (sc-13157 AF546), Alexa Fluor[®] 594 (sc-13157 AF594) or Alexa Fluor[®] 647 (sc-13157 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-13157 AF680) or Alexa Fluor[®] 790 (sc-13157 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

JAB1 (B-7) is recommended for detection of JAB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:200-1:5,000), 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).

Suitable for use as control antibody for JAB1 siRNA (h): sc-35717, JAB1 siRNA (m): sc-35718, JAB1 shRNA Plasmid (h): sc-35717-SH, JAB1 shRNA Plasmid (m): sc-35718-SH, JAB1 shRNA (h) Lentiviral Particles: sc-35717-V and JAB1 shRNA (m) Lentiviral Particles: sc-35718-V.

JAB1 (B-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of JAB1: 38 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, rat liver extract: sc-2395 or mouse embryo extract: sc-364239.

DATA



JAB1 (B-7): sc-13157. Immunoperoxidase staining of expression in Cates-1b (A) and Caki-1 (B) whole cell lysates and rat liver (C) and mouse embryo (D) extracts. JAB1 (B-7): sc-13157. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tumor showing nuclear staining (A). Immunoperoxidase stain ing of formalin fixed, paraffin-embedded human oral mucosa tissue showing nuclear and cytoplasmic staining of surface epithelial cells. Kindly provided by The

Swedish Human Protein Atlas (HPA) program (B)

SELECT PRODUCT CITATIONS

- Ben-Ari, Y., et al. 1990. Activators of ATP-sensitive K⁺ channels reduce anoxic depolarization in CA3 hippocampal neurons. Neuroscience 37: 55-60.
- 2. Wang, S., et al. 2016. Hsa-miR-24-3p increases nasopharyngeal carcinoma radiosensitivity by targeting both the 3'UTR and 5'UTR of Jab1/CSN5. Oncogene 35: 6096-6108.
- Jumpertz, S., et al. 2017. CSN5/JAB1 suppresses the Wnt inhibitor DKK1 in colorectal cancer cells. Cell. Signal. 34: 38-46.
- Bruun, T.U.J., et al. 2018. Prospective cohort study for identification of underlying genetic causes in neonatal encephalopathy using whole-exome sequencing. Genet. Med. 20: 486-494.

RESEARCH USE

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