SANTA CRUZ BIOTECHNOLOGY, INC.

JAB1 (B-7): sc-13157

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 coactivator 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 µg 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 µg/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.

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).

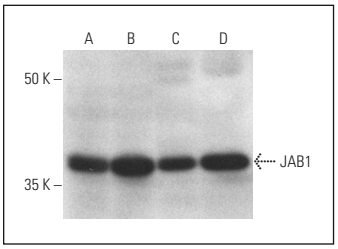
Suitable for use as control antibody for JAB1 siRNA (h): sc-35717, JAB1 siRNA (m): sc-35718, JAB1 shRNA Plasmid (h): sc-35717-SH, JAB1 shRNA Plasmid (m): sc-35718-SH, JAB1 shRNA (h) Lentiviral Particles: sc-35717-V and JAB1 shRNA (m) Lentiviral Particles: sc-35718-V.

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

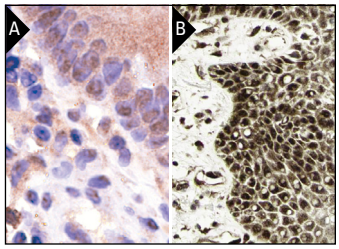
Molecular Weight of JAB1: 38 kDa.

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. Western blot analysis of JAB1 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 staining 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

1. 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.
3. Jumpertz, S., et al. 2017. CSN5/JAB1 suppresses the Wnt inhibitor DKK1 in colorectal cancer cells. Cell. Signal. 34: 38-46.
4. 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.