

# JAB1 (42): sc-135954

## 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 homodimers. 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. Bohmann, 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.
4. Renz, M., et al. 1987. Chromatin association and DNA-binding properties of the c-Fos proto-oncogene product. *Nucleic Acids Res.* 15: 277-292.
5. Angel, P., et al. 1988. Oncogene Jun encodes a sequence-specific transactivator similar to AP-1. *Nature* 332: 166-171.
6. Franza, B.R., et al. 1988. The Fos complex and Fos related antigens recognize sequence elements that contain AP-1 binding sites. *Science* 239: 1150-1153.
7. Binetruy, B., et al. 1991. Ha-Ras augments c-jun activity and stimulates phosphorylation of its activation domain. *Nature* 351: 122-127.
8. Claret, F.X., et al. 1996. A new group of conserved coactivators that increase the specificity of AP-1 transcription factors. *Nature* 383: 453-457.
9. LocusLink Report (LocusID: 10987). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

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

## SOURCE

JAB1 (42) is a mouse monoclonal antibody raised against amino acids 234-334 of JAB1 of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

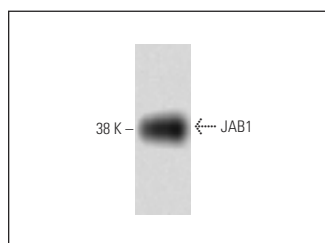
JAB1 (42) is recommended for detection of JAB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

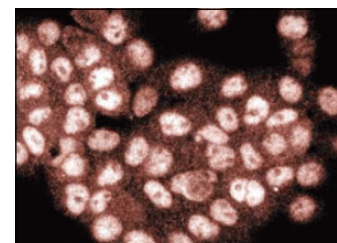
Molecular Weight of JAB1: 38 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, rat liver extract: sc-2395 or Caki-1 cell lysate: sc-2224.

## DATA



JAB1 (42): sc-135954. Western blot analysis of JAB1 expression in Jurkat whole cell lysate.



JAB1 (42): sc-135954. Immunofluorescence staining of A-431 cells showing nuclear and cytoplasmic staining.

## SELECT PRODUCT CITATIONS

1. Haque, R., et al. 2011. Melatonin synthesis in retina: cAMP-dependent transcriptional regulation of chicken arylalkylamine N-acetyltransferase by a CRE-like sequence and a TTATT repeat motif in the proximal promoter. *J. Neurochem.* 119: 6-17.
2. Bornstein, G. and Grossman, C. 2015. COP9-Signalosome deneddylase activity is enhanced by simultaneous neddylation: insights into the regulation of an enzymatic protein complex. *Cell Div.* 10: 5.

## 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. Not for resale.



See **JAB1 (B-7): sc-13157** for JAB1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.