



Fra-1 (h2): 293T Lysate: sc-176731

BACKGROUND

The v-Fos oncogene was initially detected in two independent murine osteosarcoma virus isolates and an avian nephroblastoma virus. Members of the c-Fos gene family, including c-Fos, Fos B, Fra-1 and Fra-2, encode nuclear phosphoproteins that are rapidly and transiently induced by a variety of agents and function as transcriptional regulators for several genes. In contrast to c-Jun proteins, which form homo- and heterodimers that bind to specific DNA response elements, c-Fos proteins are only active as heterodimers with members of the Jun gene family. In addition, selected ATF/CREB family members can form leucine zipper dimers with Fos and Jun. Different dimers exhibit differential specificity and affinity for AP-1 and CRE sites.

REFERENCES

1. Finkel, M.P., Biskis, B.O. and Jenkins, P.B. 1966. Virus induction of osteosarcomas in mice. *Science* 151: 698-701.
2. Sambucetti, L.C. and Curran, T. 1986. The Fos protein complex is associated with DNA in isolated nuclei and binds to DNA cellulose. *Science* 234: 1417-1419.
3. Nishizawa, M., Goto, N. and Kawai, S. 1987. An avian transforming retrovirus isolated from a nephroblastoma that carries the Fos gene as the oncogene. *J. Virol.* 61: 3733-3740.
4. Bohmann, D., Bos, T.J., Admon, A., Nishimura, T., Vogt, P.K. and Tjian, R. 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.
5. Cohen, D.R., Ferreira, P.C., Gentz, R., Franza, B.R., Jr. and Curran, T. 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.
6. Nishina, H., Sato, H., Suzuki, T., Sato, M. and Iba, H. 1990. Isolation and characterization of Fra-2, an additional member of the Fos gene family. *Proc. Natl. Acad. Sci. USA* 87: 3619-3623.
7. Boise, L.H., Petryniak, B., Mao, X., June, C.H., Wang, C.Y., Lindsten, T., Bravo, R., Kovary, K., Leiden, J.M. and Thompson, C.B. 1993. The NFAT-1 DNA binding complex in activated T cells contains Fra-1 and Jun B. *Mol. Cell. Biol.* 13: 1911-1919.
8. Casalino, L., Bakiri, L., Talotta, F., Weitzman, J.B., Fusco, A., Yaniv, M. and Verde, P. 2007. Fra-1 promotes growth and survival in Ras-transformed thyroid cells by controlling cyclin A transcription. *EMBO J.* 26: 1878-1890.
9. Chiappetta, G., Ferraro, A., Botti, G., Monaco, M., Pasquinelli, R., Vuttariello, E., Arnaldi, L., Di Bonito, M., D'Aiuto, G., Pierantoni, G.M. and Fusco, A. 2007. Fra-1 protein overexpression is a feature of hyperplastic and neoplastic breast disorders. *BMC Cancer* 7: 17.

CHROMOSOMAL LOCATION

Genetic locus: FOSL1 (human) mapping to 11q13.1.

RESEARCH USE

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

PRODUCT

Fra-1 (h2): 293T Lysate represents a lysate of human Fra-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Fra-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Fra-1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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