



Fra-2 (h2): 293T Lysate: sc-176490

BACKGROUND

The Fos-related gene, Fra-2, was initially molecularly cloned from chicken genomic DNA and shown to represent a new member of the immediate early gene family. The human counterpart of the chicken Fra-2 gene has since been described. Sequence alignment shows that the amino acid sequences conserved among Fra-2, c-Fos, Fra-1 and Fos B are contained in five regions. Region 2, the longest and most highly conserved region, contains the leucine zipper structure and the basic region, suggesting that like Fos, Fra-1 and Fos B, Fra-2 also forms heterodimers with c-Jun that recognize a specific DNA sequence such as the binding site for transcription factor AP-1. Such a model is further supported by the finding that the Fra-2 gene product forms a complex with c-Jun in growth-stimulated cells.

REFERENCES

1. Curran, T., Van Beveren, C., Ling, N. and Verma, I.M. 1985. Viral and cellular Fos proteins are complexed with a 39,000-dalton cellular protein. *Mol. Cell. Biol.* 5: 167-172.
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. Rauscher, F.J., III, Cohen, D.R., Curran, T., Bos, T.J., Vogt, P.K., Bohmann, D., Tjian, R. and Franza, B.R., Jr. 1988. Fos-associated protein p39 is the product of the Jun proto-oncogene. *Science* 240: 1010-1016.
4. Cohen, D.R., Ferreira, C.D., 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.
5. Zerial, M., Toschi, L., Ryseck, R.P., Schuermann, M., Muller, R. and Bravo, R. 1989. The product of a novel growth factor activated gene, Fos B, interacts with Jun proteins enhancing their DNA binding activity. *EMBO J.* 8: 805-813.
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. Matsui, M., Tokuhara, M., Konuma, Y., Nomura, N. and Ishizaki, R. 1990. Isolation of human Fos-related genes and their expression during monocyte-macrophage differentiation. *Oncogene* 5: 249-255.
8. Butler, T.L. and Pennypacker, K.R. 2005. The transcriptional response to hypoxic insult controlled by Fra-2. *Gene Expr.* 12: 61-67.
9. Zayzafoon, M. 2005. Inhibition of NFAT increases osteoblast differentiation by increasing Fra-2 expression. *J. Musculoskelet. Neuronal Interact.* 5: 347.

CHROMOSOMAL LOCATION

Genetic locus: FOSL2 (human) mapping to 2p23.2.

PRODUCT

Fra-2 (h2): 293T Lysate represents a lysate of human Fra-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Fra-2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Fra-2 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.

RESEARCH USE

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

PROTOCOLS

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