# Fra-2 (h): 293T Lysate: sc-176435



The Power to Question

## **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., et al. 1985. Viral and cellular Fos proteins are complexed with a 39,000-dalton cellular protein. Mol. Cell. Biol. 5: 167-172.
- 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.
- 3. Rauscher, F.J. III., et al. 1988. Fos-associated protein p39 is the product of the Jun proto-oncogene. Science 240: 1010-1016.
- 4. Cohen, D.R., et al. 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.
- Zerial, M., et al. 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.
- Nishina, H., et al. 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., et al. 1990. Isolation of human Fos-related genes and their expression during monocyte-macrophage differentiation. Oncogene 5: 249-255.
- 8. Butler, T.L., et al. 2005. The transcriptional response to hypoxic insult controlled by Fra-2. Gene Expr. 12: 61-67.
- 9. Zayzafoon, M., et al. 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 (h): 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.

# **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.

#### **APPLICATIONS**

Fra-2 (h): 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.

## **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.

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