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# TFE3 (h2): 293T Lysate: sc-178033

## BACKGROUND

The DNA-binding factor TFE3 contains adjacent helix-loop-helix (HLH) and leucine zipper (LZ) domains flanked by an upstream basic region. These protein motifs are frequently observed in other transcription factors and are particularly common to members of the Myc family. TFE3 is ubiquitously expressed and can directly associate with DNA as either homodimers or heterodimers formed with two related proteins, TFEB or TFEC. TFE3 binds to and activates the microE3 motif of the immunoglobulin heavy-chain enhancer to induce B-cell-specific gene transcription and DNA recombination. TFEB binds to the major late promoter of adenovirus and specifically associates with DNA as both a homodimer and a heterodimer with TFE3. TFEB is expressed at low levels in the embryo but at high levels in the trophoblast cells of the placenta, where it plays a critical role in regulating normal vascularization of the placenta. TFEC shares a bHLH/LZ structure with TFE3 and a closely related protein microphthalmia-associated transcription factor (MITF), which is critically involved in melanocyte differentiation. Unlike TFE3, the expression of TFEC is largely restricted to fibroblasts, myoblasts, chondrosarcoma cells, and myeloma cells.

## REFERENCES

1. Beckmann, H., Su, L.K. and Kadesch, T. 1990. TFE3: a helix-loop-helix protein that activates transcription through the immunoglobulin enhancer muE3 motif. *Genes Dev.* 4: 167-179.
2. Fisher, D.E., Carr, C.S., Parent, L.A. and Sharp, P.A. 1991. TFEB has DNA-binding and oligomerization properties of a unique helix-loop-helix/leucine-zipper family. *Genes Dev.* 5: 2342-2352.
3. Kerkhoff, E., Bister, K. and Klempnauer, K.H. 1991. Sequence-specific DNA binding by Myc proteins. *Proc. Natl. Acad. Sci. USA* 88: 4323-4327.
4. Artandi, S.E., Cooper, C., Shrivastava, A. and Calame, K. 1994. The basic helix-loop-helix-zipper domain of TFE3 mediates enhancer-promoter interaction. *Mol. Cell. Biol.* 14: 7704-7716.
5. Yasumoto, K. and Shibahara, S. 1997. Molecular cloning of cDNA encoding a human TFEC isoform, a newly identified transcriptional regulator. *Biochim. Biophys. Acta* 1353: 23-31.
6. Steingrimsson, E., Tessarollo, L., Reid, S.W., Jenkins, N.A. and Copeland, N.G. 1998. The bHLH-Zip transcription factor TFEB is essential for placental vascularization. *Development* 125: 4607-4616.
7. Rehli, M., Den Elzen, N., Cassady, A.I., Ostrowski, M.C. and Hume, D.A. 1999. Cloning and characterization of the murine genes for bHLH-ZIP transcription factors TFEC and TFEB reveal a common gene organization for all MIT subfamily members. *Genomics* 56: 111-120.
8. Rehli, M., Lichanska, A., Cassady, A.I., Ostrowski, M.C. and Hume, D.A. 1999. TFEC is a macrophage-restricted member of the microphthalmia-TFE subfamily of basic helix-loop-helix leucine zipper transcription factors. *J. Immunol.* 162: 1559-1565.

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: TFE3 (human) mapping to Xp11.23.

## PRODUCT

TFE3 (h2): 293T Lysate represents a lysate of human TFE3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

TFE3 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TFE3 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

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