

TIEG1 (m): 293T Lysate: sc-124051

BACKGROUND

Originally isolated from osteoblastic cells, the TGF β -inducible early gene-1 (TIEG1) is a Krüppel-like zinc finger transcription factor-encoding gene which regulates cellular growth and differentiation. TIEG1 is regulated as an early response gene by TGF β 1. It is expressed in both acinar and ductular epithelial cells from exocrine pancreas and may serve as an early response gene in pancreatic cell lines. Further, overexpression of TIEG1 in TGF β -sensitive epithelial cells induces apoptosis. TIEG1 and EGR α are expressed from alternate promoters of the same gene. Both are highly expressed in human fetal osteoblast cells. TIEG1 is additionally expressed at high levels in PBLs, spleen and colon, and at lower levels in thymus, small intestine, ovary, prostate and skeletal muscle. The nuclear TIEG2 protein, which shares significant homology with TIEG1, was originally isolated from globin-expressing human fetal erythroid cells. TIEG2 is also expressed in fetal liver. Overexpression of TIEG2 in cultured epithelial cells inhibits cellular proliferation. TIEG2 expression is upregulated by TGF β 1 and serum deprivation.

REFERENCES

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2. Blok, L.J., Grossmann, M.E., Perry, J.E. and Tindall, D.J. 1995. Characterization of an early growth response gene, which encodes a zinc finger transcription factor, potentially involved in cell cycle regulation. *Mol. Endocrinol.* 9: 1610-1620.
3. Tachibana, I., Imoto, M., Adjei, P.N., Gores, G.J., Subramaniam, M., Spelsberg, T.C. and Urrutia, R. 1997. Overexpression of the TGF β -regulated zinc finger encoding gene, TIEG, induces apoptosis in pancreatic epithelial cells. *J. Clin. Invest.* 99: 2365-2374.
4. Fautsch, M.P., Vrabel, A., Rickard, D., Subramaniam, M., Spelsberg, T.C. and Wieben, E.D. 1998. Characterization of the mouse TGF β -inducible early gene (TIEG): conservation of exon and transcriptional regulatory sequences with evidence of additional transcripts. *Mamm. Genome* 9: 838-842.
5. Cook, T., Gebelein, B., Mesa, K., Mladek, A. and Urrutia, R. 1998. Molecular cloning and characterization of TIEG2 reveals a new subfamily of TGF β -inducible Sp1-like zinc finger-encoding genes involved in the regulation of cell growth. *J. Biol. Chem.* 273: 25929-25936.
6. Asano, H., Li, X.S. and Stamatoyannopoulos, G. 1999. FKLF, a novel Krüppel-like factor that activates human embryonic and fetal β -like globin genes. *Mol. Cell. Biol.* 19: 3571-3579.

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.

CHROMOSOMAL LOCATION

Genetic locus: Klf10 (mouse) mapping to 15 B3.1.

PRODUCT

TIEG1 (m): 293T Lysate represents a lysate of mouse TIEG1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

TIEG1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TIEG1 antibodies. Recommended use: 10-20 μ l per lane.

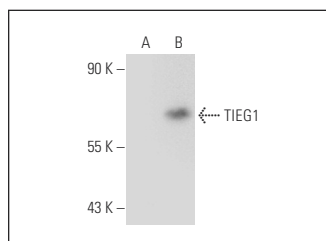
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TIEG1 (95-D): sc-130408 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TIEG1 expression in TIEG1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



TIEG1 (95-D): sc-130408. Western blot analysis of TIEG1 expression in non-transfected: sc-117752 (A) and mouse TIEG1 transfected: sc-124051 (B) 293T whole cell lysates.

RESEARCH USE

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