

TIEG1 (H-190): sc-67062

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.

CHROMOSOMAL LOCATION

Genetic locus: KLF10 (human) mapping to 8q22.3; Klf10 (mouse) mapping to 15 B3.1.

SOURCE

TIEG1 (H-190) is a rabbit polyclonal antibody raised against amino acids 191-380 mapping within an internal region of TIEG1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TIEG1 (H-190) is recommended for detection of TIEG1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TIEG1 (H-190) is also recommended for detection of TIEG1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TIEG1 siRNA (h): sc-45463, TIEG1 siRNA (m): sc-45464, TIEG1 shRNA Plasmid (h): sc-45463-SH, TIEG1 shRNA Plasmid (m): sc-45464-SH, TIEG1 shRNA (h) Lentiviral Particles: sc-45463-V and TIEG1 shRNA (m) Lentiviral Particles: sc-45464-V.

Molecular Weight of TIEG1: 52 kDa.

Positive Controls: TIEG1 (m): 293T Lysate: sc-124051.

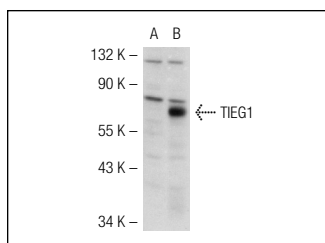
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

DATA



TIEG1 (H-190): sc-67062. Western blot analysis of TIEG1 expression in non-transfected: sc-117752 (A) and mouse TIEG1 transfected: sc-124051 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lal, G., et al. 2009. Epigenetic regulation of FOXP3 expression in regulatory T cells by DNA methylation. *J. Immunol.* 182: 259-273.
2. Miyake, M., et al. 2010. Possible role of TIEG1 as a feedback regulator of myostatin and TGF- β in myoblasts. *Biochem. Biophys. Res. Commun.* 393: 762-766.
3. Engelmann, D., et al. 2010. Functional interplay between E2F1 and chemotherapeutic drugs defines immediate E2F1 target genes crucial for cancer cell death. *Cell. Mol. Life Sci.* 67: 931-948.
4. Madonna, S., et al. 2010. The IFN- γ -dependent suppressor of cytokine signaling 1 promoter activity is positively regulated by IFN regulatory factor-1 and Sp1 but repressed by growth factor independence-1b and Krüppel-like factor-4, and it is dysregulated in psoriatic keratinocytes. *J. Immunol.* 185: 2467-2481.
5. Miyake, M., et al. 2011. TIEG1 negatively controls the myoblast pool indispensable for fusion during myogenic differentiation of C2C12 cells. *J. Cell. Physiol.* 226: 1128-1136.
6. Barbuto, R. and Mitchell, J. 2013. Regulation of the osterix (Ox, Sp7) promoter by osterix and its inhibition by parathyroid hormone. *J. Mol. Endocrinol.* 51: 99-108.

PROTOCOLS

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



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Try **TIEG1 (95-D): sc-130408**, our highly recommended monoclonal alternative to TIEG1 (H-190).