

# TIEG2 (32): sc-136101

## BACKGROUND

Originally isolated from osteoblastic cells, the TGF $\beta$ -inducible early gene 1 (TIEG1) is a Krüppel-like zinc finger transcription factor that regulates cellular growth and differentiation. TIEG1 is regulated as an early response gene by TGF $\beta$ 1. It is expressed in both acinar and ductular epithelial cells from exocrine pancreas and may serve as an early response gene in pancreatic cells, and overexpression of TIEG1 in TGF $\beta$ -sensitive epithelial cells induces apoptosis. TIEG1 is 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 expressed in fetal liver, and overexpression of TIEG2 in cultured epithelial cells inhibits cellular proliferation. TIEG2 expression is upregulated by TGF $\beta$ 1 and serum deprivation.

## REFERENCES

1. Asano, H., et al. 1999. FKLf, a novel Krüppel-like factor that activates human embryonic and fetal  $\beta$ -like globin genes. *Mol. Cell. Biol.* 19: 3571-3579.
2. Ellenrieder, V., et al. 2002. Signaling disrupts mSin3A binding to the MAD1-like Sin3-interacting domain of TIEG2, an Sp1-like repressor. *EMBO J.* 21: 2451-2460.

## CHROMOSOMAL LOCATION

Genetic locus: KLF11 (human) mapping to 2p25.1; Klf11 (mouse) mapping to 12 A1.3.

## SOURCE

TIEG2 (32) is a mouse monoclonal antibody raised against amino acids 101-219 of TIEG2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\gamma$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

TIEG2 (32) is recommended for detection of TIEG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TIEG2 siRNA (h): sc-38546, TIEG2 siRNA (m): sc-38547, TIEG2 shRNA Plasmid (h): sc-38546-SH, TIEG2 shRNA Plasmid (m): sc-38547-SH, TIEG2 shRNA (h) Lentiviral Particles: sc-38546-V and TIEG2 shRNA (m) Lentiviral Particles: sc-38547-V.

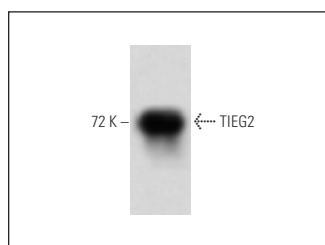
Molecular Weight of TIEG2: 72 kDa.

Positive Controls: EB1 cell lysate: sc-24668, Jurkat nuclear extract: sc-2132 or HL-60 nuclear extract: sc-2147.

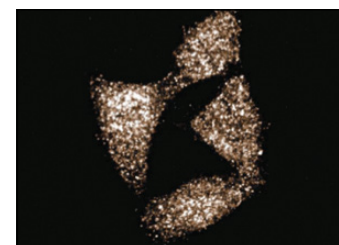
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



TIEG2 (32): sc-136101. Western blot analysis of TIEG2 expression in EB1 whole cell lysate.



TIEG2 (32): sc-136101. Immunofluorescence staining of HeLa cells showing nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Duncan, J., et al. 2015. Chronic social stress and ethanol increase expression of KLF11, a cell death mediator, in rat brain. *Neurotox. Res.* 28: 18-31.
2. Duncan, J.W., et al. 2016. Binge ethanol exposure increases the Krüppel-like factor 11-monoamine oxidase (MAO) pathway in rats: examining the use of MAO inhibitors to prevent ethanol-induced brain injury. *Neuropharmacology* 105: 329-340.
3. Hashikawa-Hobara, N., et al. 2024. CGRP causes anxiety via HP1 $\gamma$ -KLF11-MAQB pathway and dopamine in the dorsal hippocampus. *Commun. Biol.* 7: 322.
4. Huang, Y., et al. 2024. SKP2-mediated ubiquitination and degradation of KLF11 promotes osteoarthritis via modulation of JMJD3/NOTCH1 pathway. *FASEB J.* 38: e23640.

## 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. Not for resale.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.