

## BTEB1 (A-1): sc-376500

### BACKGROUND

Members of the C<sub>2</sub>H<sub>2</sub> zinc finger family bind GC-rich motifs widely distributed in gene promoters, resulting in distinct activation or repression of transcriptional activities. In addition to Sp1, Sp2, Sp3, and Sp4, the basic transcription element binding proteins-1 and -2 (BTEB1 and BTEB2, respectively), belong to this family of transcriptional regulators. BTEB1 regulates transcription by binding either a single GC-box or tandemly repeated GC-boxes within the promoter. Predominantly localized to the nuclei of endometrial luminal and glandular epithelial cells, BTEB1 expression is both acetaldehyde and UV inducible. BTEB1 plays a regulatory role in pregnancy-associated endometrial epithelial gene expression and also mediates JNK-dependent  $\alpha$  (I) collagen gene expression in hepatic stellate cells.

### REFERENCES

1. Kikuchi, Y., et al. 1996. Purification and characterization of the DNA-binding domain of BTEB, a GC box-binding transcription factor, expressed in *Escherichia coli*. *J. Biochem.* 119: 309-313.
2. Wang, Y., et al. 1997. Cell-type expression, immunolocalization, and deoxyribonucleic acid-binding activity of basic transcription element binding transcription factor, an Sp-related family member, in porcine endometrium of pregnancy. *Biol. Reprod.* 57: 707-714.
3. Lania, L., et al. 1997. Transcriptional regulation by the Sp family proteins. *Int. J. Biochem. Cell Biol.* 29: 1313-1323.
4. Simmen, R.C., et al. 1999. *Trans*-activation functions of the Sp-related nuclear factor, basic transcription element-binding protein, and progesterone receptor in endometrial epithelial cells. *Endocrinology* 140: 2517-2525.
5. Chen, A. and Davis, B.H. 2000. The DNA binding protein BTEB mediates acetaldehyde-induced, jun N-terminal kinase-dependent  $\alpha$ (I) collagen gene expression in rat hepatic stellate cells. *Mol. Cell. Biol.* 20: 2818-2826.

### CHROMOSOMAL LOCATION

Genetic locus: KLF9 (human) mapping to 9q21.12.

### SOURCE

BTEB1 (A-1) is a mouse monoclonal antibody raised against amino acids 21-150 of BTEB1 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### STORAGE

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

### PROTOCOLS

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

### APPLICATIONS

BTEB1 (A-1) is recommended for detection of BTEB1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

BTEB1 (A-1) is also recommended for detection of BTEB1 in additional species, including bovine and porcine.

Suitable for use as control antibody for BTEB1 siRNA (h): sc-37716, BTEB1 shRNA Plasmid (h): sc-37716-SH and BTEB1 shRNA (h) Lentiviral Particles: sc-37716-V.

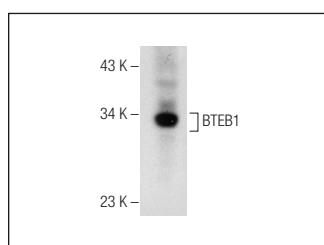
Molecular Weight of BTEB1: 32 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, HeLa whole cell lysate: sc-2200 or IMR-32 nuclear extract: sc-2148.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



BTEB1 (A-1): sc-376500. Western blot analysis of BTEB1 expression in IMR-32 nuclear extract.

### RESEARCH USE

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