

BTEB1 (E-8): sc-376423

BACKGROUND

Members of the C₂H₂ 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 α (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., et al. 2000. The DNA binding protein BTEB mediates acetaldehyde-induced, jun N-terminal kinase-dependent α (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; Klf9 (mouse) mapping to 19 B.

SOURCE

BTEB1 (E-8) is a mouse monoclonal antibody raised against amino acids 21-150 of BTEB1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain 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.

RESEARCH USE

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

APPLICATIONS

BTEB1 (E-8) is recommended for detection of BTEB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for BTEB1 siRNA (h): sc-37716, BTEB1 siRNA (m): sc-37717, BTEB1 shRNA Plasmid (h): sc-37716-SH, BTEB1 shRNA Plasmid (m): sc-37717-SH, BTEB1 shRNA (h) Lentiviral Particles: sc-37716-V and BTEB1 shRNA (m) Lentiviral Particles: sc-37717-V.

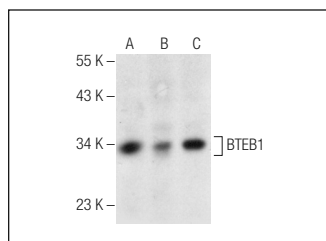
Molecular Weight of BTEB1: 32 kDa.

Positive Controls: human kidney extract: sc-363764, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

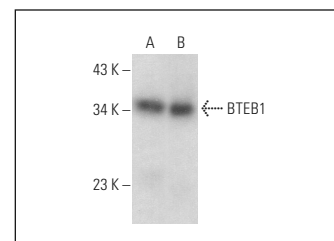
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



BTEB1 (E-8): sc-376423. Western blot analysis of BTEB1 expression in IMR-32 (A) and HeLa (B) whole cell lysates and human kidney tissue extract (C).



BTEB1 (E-8): sc-376423. Western blot analysis of BTEB1 expression in HeLa whole cell lysate (A) and A-673 nuclear extract (B).

PROTOCOLS

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