

BTEB2 (B-8): sc-398409

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. BTEB2 binds the GC-box of DNA and is expressed in fetal aorta. BTEB2 is a target for Egr-1. Expression of BTEB2 is activated by mitogen-activated protein kinase pathways. BTEB2 expression is induced in the neointima in response to vascular injury and is involved in phenotypic modulation of vascular smooth muscle cells in response to mitogen stimulation through Egr-1.

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. Kawai-Kowase, K., et al. 1999. Transcriptional activation of the zinc finger transcription factor BTEB2 gene by Egr-1 through mitogen-activated protein kinase pathways in vascular smooth muscle cells. *Circ. Res.* 85: 787-795.
5. Nagai, R., et al. 2000. Transcriptional regulation of smooth muscle phenotypic modulation. *Ann. N.Y. Acad. Sci.* 902: 214-222.
6. Ogata, T., et al. 2000. Inducible expression of basic transcription element-binding protein 2 in proliferating smooth muscle cells at the vascular anastomotic stricture. *J. Thorac. Cardiovasc. Surg.* 119: 983-989.

CHROMOSOMAL LOCATION

Genetic locus: KLF5 (human) mapping to 13q22.1; Klf5 (mouse) mapping to 14 E2.2.

SOURCE

BTEB2 (B-8) is a mouse monoclonal antibody raised against amino acids 167-286 of BTEB2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398409 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

BTEB2 (B-8) is recommended for detection of BTEB2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 BTEB2 siRNA (h): sc-37718, BTEB2 siRNA (m): sc-37719, BTEB2 shRNA Plasmid (h): sc-37718-SH, BTEB2 shRNA Plasmid (m): sc-37719-SH, BTEB2 shRNA (h) Lentiviral Particles: sc-37718-V and BTEB2 shRNA (m) Lentiviral Particles: sc-37719-V.

BTEB2 (B-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

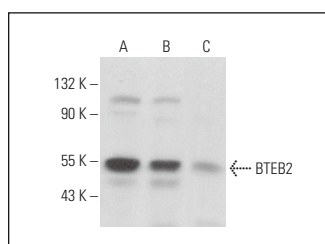
Molecular Weight of BTEB2: 51 kDa.

Positive Controls: BTEB2 (m2): 293T Lysate: sc-118867, SW480 cell lysate: sc-2219 or HeLa whole cell lysate: sc-2200.

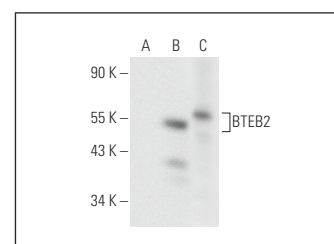
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



BTEB2 (B-8): sc-398409. Western blot analysis of BTEB2 expression in HeLa (A), SW480 (B) and NIH/3T3 (C) whole cell lysates.



BTEB2 (B-8): sc-398409. Western blot analysis of BTEB2 expression in non-transfected 293T: sc-117752 (A), mouse BTEB2 transfected 293T: sc-118867 (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Li, L.Y., et al. 2021. Interplay and cooperation between SREBF1 and master transcription factors regulate lipid metabolism and tumor-promoting pathways in squamous cancer. *Nat. Commun.* 12: 4362.

RESEARCH USE

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