

BTEB2 (E-20): sc-31938

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., Sogawa, K., Watanabe, N., Kobayashi, A. and Fujii-Kuriyama, Y. 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., Michel, F.J., Wing, A., Simmen, F.A. and Simmen, R.C. 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., Majello, B. and De Luca, P. 1997. Transcriptional regulation by the Sp family proteins. *Int. J. Biochem. Cell Biol.* 29: 1313-1323.
4. Kawai-Kowase, K., Kurabayashi, M., Hoshino, Y., Ohyama, Y. and Nagai, R. 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., Kowase, K. and Kurabayashi, M. 2000. Transcriptional regulation of smooth muscle phenotypic modulation. *Ann. N.Y. Acad. Sci.* 902: 214-222.
6. Ogata, T., Kurabayashi, M., Hoshino, Y., Sekiguchi, K., Ishikawa, S., Morishita, Y. and Nagai, R. 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 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BTEB2 of human origin.

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.

PRODUCT

Each vial contains 200 µg IgG 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-31938 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-31938 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BTEB2 (E-20) is recommended for detection of BTEB2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

BTEB2 (E-20) is also recommended for detection of BTEB2 in additional species, including equine, canine, bovine, porcine and avian.

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 (E-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BTEB2: 51 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, SW480 nuclear extract: sc-2155 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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



Try **BTEB2 (G-7): sc-398470** or **BTEB2 (A-5): sc-398014**, our highly recommended monoclonal alternatives to BTEB2 (E-20).