

# BTEB2 (10B3): sc-69906

## 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. 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 (10B3) is a mouse monoclonal antibody raised against BTEB2.

## PRODUCT

Each vial contains 100 µl ascites containing IgG<sub>1</sub> with < 0.1% sodium azide.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

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

## APPLICATIONS

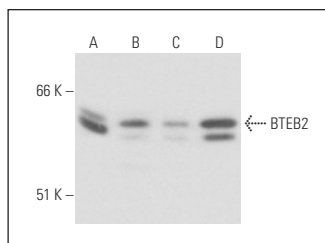
BTEB2 (10B3) is recommended for detection of BTEB2 of mouse, rat and human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

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.

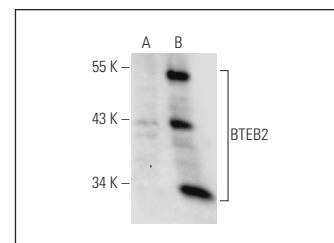
Molecular Weight of BTEB2: 51 kDa.

Positive Controls: BTEB2 (m2): 293T Lysate: sc-118867, SW480 cell lysate: sc-2219 or A549 cell lysate: sc-2413.

## DATA



BTEB2 (10B3): sc-69906. Western blot analysis of BTEB2 expression in NIH/3T3 (A), SW480 (B), HeLa (C) and A549 (D) nuclear extracts.



BTEB2 (10B3): sc-69906. Western blot analysis of BTEB2 expression in non-transfected: sc-117752 (A) and mouse BTEB2 transfected: sc-118867 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Du, J.X., et al. 2011. The E3 ubiquitin ligase SMAD ubiquitination regulatory factor 2 negatively regulates Krüppel-like factor 5 protein. *J. Biol. Chem.* 286: 40354-40364.

## PROTOCOLS

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