SANTA CRUZ BIOTECHNOLOGY, INC.

BTEB1 (A-5): sc-376422

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the C_2H_2 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.

CHROMOSOMAL LOCATION

Genetic locus: KLF9 (human) mapping to 9q21.12; Klf9 (mouse) mapping to 19 B.

SOURCE

BTEB1 (A-5) is a mouse monoclonal antibody raised against amino acids 21-150 of BTEB1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BTEB1 (A-5) is available conjugated to agarose (sc-376422 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376422 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376422 PE), fluorescein (sc-376422 FITC), Alexa Fluor® 488 (sc-376422 AF488), Alexa Fluor® 546 (sc-376422 AF546), Alexa Fluor® 594 (sc-376422 AF594) or Alexa Fluor® 647 (sc-376422 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376422 AF680) or Alexa Fluor® 790 (sc-376422 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

BTEB1 (A-5) 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 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 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.

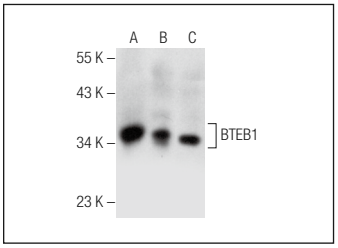
Molecular Weight of BTEB1: 32 kDa.

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

STORAGE

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

DATA



BTEB1 (A-5): sc-376422. Western blot analysis of BTEB1 expression in IMR-32 (**A**) and HeLa (**B**) whole cell lysates and human kidney tissue extract (**C**).

SELECT PRODUCT CITATIONS

1. Fu, D.Z., et al. 2014. The fate of Krüppel-like factor 9-positive hepatic carcinoma cells may be determined by the programmed cell death protein 5. Int. J. Oncol. 44: 153-160.
2. Guichet, P.O., et al. 2015. Notch1 stimulation induces a vascularization switch with pericyte-like cell differentiation of glioblastoma stem cells. Stem Cells 33: 21-34.
3. Bagati, A., et al. 2019. KLF9-dependent ROS regulate melanoma progression in stage-specific manner. Oncogene 38: 3585-3597.
4. Tupone, M.G., et al. 2020. MicroRNA-378a-5p is a novel positive regulator of melanoma progression. Oncogenesis 9: 22.
5. Mostafa, M.M., et al. 2021. Genomic determinants implicated in the glucocorticoid-mediated induction of KLF9 in pulmonary epithelial cells. J. Biol. Chem. 296: 100065.
6. Kadamb, R., et al. 2022. Invasive phenotype in triple negative breast cancer is inhibited by blocking SIN3A-PF1 interaction through KLF9 mediated repression of ITGA6 and ITGB1. Transl. Oncol. 16: 101320.
7. Liu, X., et al. 2022. HER2 drives lung fibrosis by activating a metastatic cancer signature in invasive lung fibroblasts. J. Exp. Med. 219: e20220126.
8. Wu, Y., et al. 2023. Epigenetic and transcriptomic characterization reveals progression markers and essential pathways in clear cell renal cell carcinoma. Nat. Commun. 14: 1681.
9. Wang, Q., et al. 2023. MicroRNA-30a-5p regulates cypermethrin-induced apoptosis of Sertoli cells by targeting KLF9 *in vitro*. Reprod. Toxicol. 119: 108414.
10. Li, Z., et al. 2024. LncRNA-LncDACH1 mediated phenotypic switching of smooth muscle cells during neointimal hyperplasia in male arteriovenous fistulas. Nat. Commun. 15: 3743.

RESEARCH USE

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