SANTA CRUZ BIOTECHNOLOGY, INC.

BTEB2 (G-7): sc-398470

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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

BTEB2 (G-7) is a mouse monoclonal antibody raised against amino acids 167-286 of BTEB2 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-398470 X, 200 µg/0.1 ml.

BTEB2 (G-7) is available conjugated to agarose (sc-398470 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398470 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398470 PE), fluorescein (sc-398470 FITC), Alexa Fluor® 488 (sc-398470 AF488), Alexa Fluor® 546 (sc-398470 AF546), Alexa Fluor® 594 (sc-398470 AF594) or Alexa Fluor® 647 (sc-398470 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398470 AF680) or Alexa Fluor® 790 (sc-398470 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BTEB2 (G-7) 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 (G-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

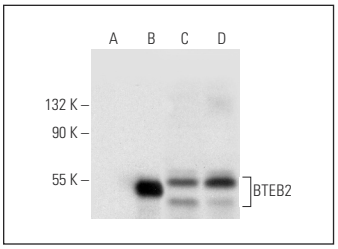
Molecular Weight of BTEB2: 51 kDa.

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

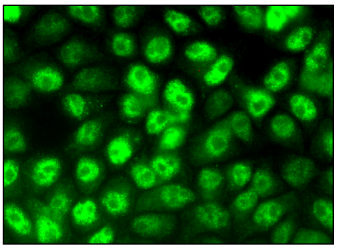
STORAGE

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

DATA



BTEB2 (G-7): sc-398470. Western blot analysis of BTEB2 expression in non-transfected 293T: sc-117752 (**A**), mouse BTEB2 transfected 293T: sc-118867 (**B**), SW480 (**C**) and HeLa (**D**) whole cell lysates.



BTEB2 (G-7): sc-398470. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Chen, Z., et al. 2017. Klf5 mediates odontoblastic differentiation through regulating dentin-specific extracellular matrix gene expression during mouse tooth development. Sci. Rep. 7: 46746.
2. Mutolo, M.J., et al. 2018. A transcription factor network represses CFTR gene expression in airway epithelial cells. Biochem. J. 475: 1323-1334.
3. Wang, P., et al. 2018. Advanced glycation end products increase MDM2 expression via transcription factor Klf5. J. Diabetes Res. 2018: 3274084.
4. Pan, J., et al. 2020. Lineage-specific epigenomic and genomic activation of oncogene HNF4A promotes gastrointestinal adenocarcinomas. Cancer Res. 80: 2722-2736.
5. Wang, Q.Y., et al. 2020. Characterization of super-enhancer associated functional lncRNAs acting as ceRNAs in ESCC. Mol. Oncol. 14: 2203-2230.
6. Paranjapye, A., et al. 2021. Krüppel-like factor 5 regulates wound repair and the innate immune response in human airway epithelial cells. J. Biol. Chem. 297: 100932.
7. Che, M., et al. 2021. Opposing transcriptional programs of KLF5 and AR emerge during therapy for advanced prostate cancer. Nat. Commun. 12: 6377.
8. Li, Z.L., et al. 2021. FIH-1-modulated HIF-1α C-TAD promotes acute kidney injury to chronic kidney disease progression via regulating KLF5 signaling. Acta Pharmacol. Sin. 42: 2106-2119.
9. Liu, D., et al. 2022. LMP2A inhibits the expression of KLF5 through the mTORC1 pathway in EBV-associated gastric carcinoma. Virus Res. 315: 198792.

RESEARCH USE

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