SANTA CRUZ BIOTECHNOLOGY, INC.

MafB (B-11): sc-376387

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the Maf family of basic region/leucine zipper (bZIP) transcription factors affect transcription in either a positive or negative fashion, depending on their particular protein partner and the context of the target promoter. c-Maf (Maf-2) and the closely related family members neural retina leucine zipper (Nrl), L-Maf, and Kmrl1/MafB (Maf-1) all bind to T-MARE sites and have been implicated in a wide variety of developmental and physiologic roles. The three small Maf family proteins (MafF, MafG, and MafK) are components of NF-E2 that function as heterodimers with the large tissue-restricted subunit of NF-E2 called p45, and they are implicated in the transcriptional regulation of many erythroid-specific genes. MafB is expressed in a wide variety of tissues and encodes a protein containing a typical bZip motif in its carboxy-terminal region. As a transcriptional activator, MafB plays a pivotal role in regulating lineage-specific gene expression during hematopoiesis by repressing Ets-1-mediated transcription of key erythroid-specific genes in myeloid cells. c-Maf interacts with the c-Myb DNA binding domain and forms Myb-Maf complexes, which inturn mediate the cooperative interactions between c-Myb and Ets-1 during early myeloid cell differentiation.

CHROMOSOMAL LOCATION

Genetic locus: MAFB (human) mapping to 20q12; Mafb (mouse) mapping to 2 H2.

SOURCE

MafB (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-25 near the N-terminus of MafB of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} 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-376387 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-376387 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MafB (B-11) is recommended for detection of MafB 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 MafB siRNA (h): sc-35839, MafB siRNA (m): sc-35840, MafB shRNA Plasmid (h): sc-35839-SH, MafB shRNA Plasmid (m): sc-35840-SH, MafB shRNA (h) Lentiviral Particles: sc-35839-V and MafB shRNA (m) Lentiviral Particles: sc-35840-V.

MafB (B-11) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

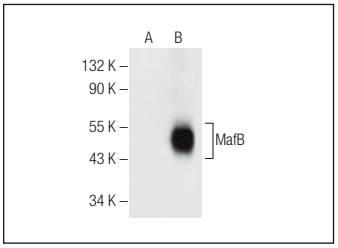
Molecular Weight of MafB: 43 kDa.

Positive Controls: MafB (h): 293T Lysate: sc-114754.

STORAGE

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

DATA



MafB (B-11): sc-376387. Western blot analysis of MafB expression in non-transfected: sc-117752 (**A**) and human MafB transfected: sc-114754 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yu, H., et al. 2016. Transcription factor MafB promotes hepatocellular carcinoma cell proliferation through up-regulation of cyclin D1. Cell. Physiol. Biochem. 39: 700-708.
2. Li, Y., et al. 2017. MicroRNA-152 inhibits cell proliferation, migration and invasion by directly targeting MAFB in nasopharyngeal carcinoma. Mol. Med. Rep. 15: 948-956.
3. Adamik, J., et al. 2020. EZH2 supports osteoclast differentiation and bone resorption via epigenetic and cytoplasmic targets. J. Bone Miner. Res. 35: 181-195.
4. Li, L., et al. 2021. Upregulation of amplified in breast cancer 1 contributes to pancreatic ductal adenocarcinoma progression and vulnerability to blockage of hedgehog activation. Theranostics 11: 1672-1689.
5. Zhang, W., et al. 2024. Hesperidin activates the GLP-1R/cAMP-CREB/IRS2/PDX1 pathway to promote transdifferentiation of islet α cells into β cells Across the spectrum. Heliyon 10: e35424.
6. Ismail, S.M., et al. 2024. Exploring the role of circ-0091579/miR-1225-5p and circ-HIPK3/miR-338-3p axes in the pathogenesis of postmenopausal osteoporosis. Int. J. Biol. Macromol. 278: 134688.
7. Lopes-Paciencia, S., et al. 2024. A senescence restriction point acting on chromatin integrates oncogenic signals. Cell Rep. 43: 114044.

RESEARCH USE

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

PROTOCOLS

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