

MafB (B-11): sc-376387

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 Krml1/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 in turn mediate the cooperative interactions between c-Myb and Ets-1 during early myeloid cell differentiation.

REFERENCES

1. Kerppola, T.K., et al. 1994. A conserved region adjacent to the basic domain is required for recognition of an extended DNA binding site by Maf/Nrl family proteins. *Oncogene* 9: 3149-3158.
2. Igarashi, K., et al. 1995. Conditional expression of the ubiquitous transcription factor MafK induces erythroleukemia cell differentiation. *Proc. Natl. Acad. Sci. USA* 92: 7445-7449.
3. Kataoka, K., et al. 1995. Small Maf proteins heterodimerize with Fos and may act as competitive repressors of the NF-E2 transcription factor. *Mol. Cell. Biol.* 15: 2180-2190.
4. Johnsen, O., et al. 1996. Small Maf proteins interact with the human transcription factor TCF11/Nrf1/LCR-F1. *Nucleic Acids Res.* 24: 4289-4297.

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).

RESEARCH USE

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

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).

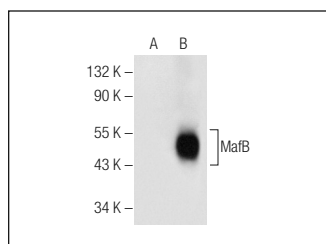
Suitable for use as control antibody for MafB siRNA (h): sc-35839, MafB siRNA (m): sc-35840, MafB shRNA Plasmid (h): sc-35839-SH, MafB shRNA Plasmid (m): sc-35840-SH, MafB shRNA (h) Lentiviral Particles: sc-35839-V and MafB shRNA (m) Lentiviral Particles: sc-35840-V.

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, HL-60 whole cell lysate: sc-2209 or TF-1 cell lysate: sc-2412.

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.

STORAGE

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