SANTA CRUZ BIOTECHNOLOGY, INC.

MafB (P-20): sc-10022

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 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MafB of human origin.

PRODUCT

Each vial contains 100 µg IgG 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-10022 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-10022 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MafB (P-20) is recommended for detection of MafB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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.

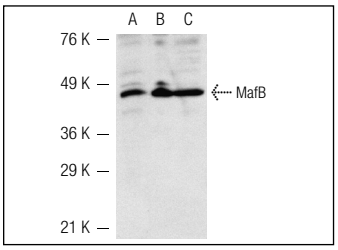
MafB (P-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MafB: 43 kDa.

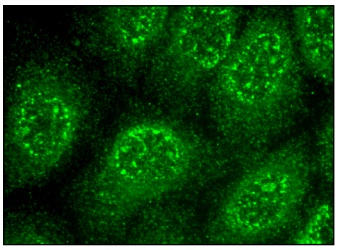
STORAGE

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

DATA



MafB (N-15): sc-10022. Western blot analysis of MafB expression in HL-60 (**A**), TF-1 (**B**) and K-562 (**C**) whole cell lysates.



MafB (P-20): sc-10022. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Matsuoka, T.A., et al. 2003. Members of the large Maf transcription family regulate Insulin gene transcription in islet β cells. Mol. Cell. Biol. 23: 6049-6062.
2. Smith, J.M., et al. 2007. The contribution of transactivation subdomains 1 and 2 to p53-induced gene expression is heterogeneous but not subdomain-specific. Neoplasia 9: 1057-1065.
3. Zanocco-Marani, T., et al. 2009. TFE3 transcription factor regulates the expression of MafB during macrophage differentiation. Exp. Cell Res. 315: 1798-1808.
4. Miyai, M., et al. 2010. c-Maf and MafB transcription factors are differentially expressed in Huxley's and Henle's layers of the inner root sheath of the hair follicle and regulate cuticle formation. J. Dermatol. Sci. 57: 178-182.
5. Kamitani-Kawamoto, A., et al. 2011. MafB interacts with Gcm2 and regulates parathyroid hormone expression and parathyroid development. J. Bone Miner. Res. 26: 2463-2472.
6. Han, S.I., et al. 2011. ATF2 interacts with β-cell-enriched transcription factors, MafA, Pdx1, and β2, and activates Insulin gene transcription. J. Biol. Chem. 286: 10449-10456.

RESEARCH USE

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