

MafB (F-11): sc-74521

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.

CHROMOSOMAL LOCATION

Genetic locus: MAFB (human) mapping to 20q12.

SOURCE

MafB (F-11) is a mouse monoclonal antibody raised against amino acids 111-210 of MafB 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-74521 X, 200 µg/0.1 ml.

MafB (F-11) is available conjugated to agarose (sc-74521 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74521 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-74521 PE), fluorescein (sc-74521 FITC), Alexa Fluor® 488 (sc-74521 AF488), Alexa Fluor® 546 (sc-74521 AF546), Alexa Fluor® 594 (sc-74521 AF594) or Alexa Fluor® 647 (sc-74521 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-74521 AF680) or Alexa Fluor® 790 (sc-74521 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

MafB (F-11) is recommended for detection of MafB of 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).

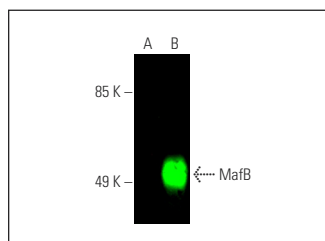
Suitable for use as control antibody for MafB siRNA (h): sc-35839, MafB shRNA Plasmid (h): sc-35839-SH and MafB shRNA (h) Lentiviral Particles: sc-35839-V.

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

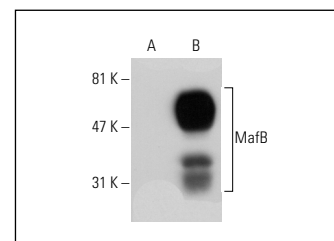
Molecular Weight of MafB: 43 kDa.

Positive Controls: MafB (h2): 293T Lysate: sc-114754, TF-1 cell lysate: sc-2412 or HL-60 whole cell lysate: sc-2209.

DATA



MafB (F-11): sc-74521. Near-infrared western blot analysis of MafB expression in non-transfected: sc-117752 (A) and human MafB transfected: sc-114754 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



MafB (F-11): sc-74521. 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. Rio-Machin, A., et al. 2013. Downregulation of specific miRNAs in hyperdiploid multiple myeloma mimics the oncogenic effect of IgH translocations occurring in the non-hyperdiploid subtype. *Leukemia* 27: 925-931.
2. Zhang, S., et al. 2022. MAFB promotes the malignant phenotypes by IGFBP6 in esophageal squamous cell carcinomas. *Exp. Cell Res.* 416: 113158.

STORAGE

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

PROTOCOLS

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