

MafG (m2): 293T Lysate: sc-125575

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 are 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 which function as heterodimers with the large tissue-restricted subunit of NF-E2 called p45, and furthermore are implicated in the transcriptional regulation of many erythroid-specific genes. MafG is ubiquitously expressed, with highest expression in the VMS, heart and skeletal muscle; its expression is induced in response to stress. MafK, also designated NF-E2 p18, is primarily expressed during development in mesenchymal and hematopoietic cells and neurons. MafK heterodimerizes with NF-E2 and various CNC proteins. MafF is most abundantly expressed in the lung and is thought to compensate for loss of function mutations in MafG and MafK.

REFERENCES

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3. Johnsen, O., Skammelsrud, N., Luna, L., Nishizawa, M., Prydz, H. and Kolsto, A.B. 1996. Small Maf proteins interact with the human transcription factor TCF11/Nrf1/LCR-F1. *Nucleic Acids Res.* 24: 4289-4297.
4. Motohashi, H., Ohta, J., Engel, J.D. and Yamamoto, M. 1998. A core region of the MafK gene 1N promoter directs neurone-specific transcription *in vivo*. *Genes Cells* 3: 671-684.
5. Onodera, K., Shavit, J.A., Motohashi, H., Katsuoka, F., Akasaka, J.E., Engel, J.D. and Yamamoto, M. 1999. Characterization of the murine MafF gene. *J. Biol. Chem.* 274: 21162-21169.
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7. Shimokawa, N., Okada, J. and Miura, M. 2000. Cloning of MafG homologue from the rat brain by differential display and its expression after hypercapnic stimulation. *Mol. Cell. Biochem.* 203: 135-141.
8. Suzuki, T., Blank, V., Sesay, J.S. and Crawford, D.R. 2001. Maf genes are involved in multiple stress response in human. *Biochem. Biophys. Res. Commun.* 280: 4-8.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Mafg (mouse) mapping to 11 E2.

PRODUCT

MafG (m2): 293T Lysate represents a lysate of mouse MafG transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

MafG (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MafG antibodies. Recommended use: 10-20 µl per lane.

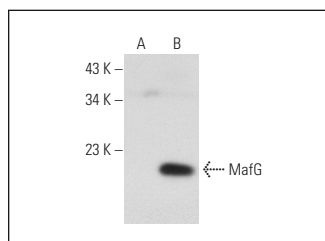
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MafF/G/K (D-12): sc-166548 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse MafG expression in MafG transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MafF/G/K (D-12): sc-166548. Western blot analysis of MafG expression in non-transfected: sc-117752 (A) and mouse MafG transfected: sc-125575 (B) 293T whole cell lysates.

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.