SANTA CRUZ BIOTECHNOLOGY, INC.

MafF/G/K (H-100): sc-22831

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 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.

SOURCE

MafF/G/K (H-100) is a rabbit polyclonal antibody raised against amino acids 63-126 of MafG of human origin.

PRODUCT

Each vial contains 200 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-22831 X, 200 µg/0.1 ml.

APPLICATIONS

MafF/G/K (H-100) is recommended for detection of MafF, MafG and NF-E2 p18 (also designated MafK) 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).

MafF/G/K (H-100) is also recommended for detection of MafF, MafG and NF-E2 p18 (also designated MafK) in additional species, including equine, canine, bovine, porcine and avian.

MafF/G/K (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Maf proteins: 18-20 kDa.

Positive Controls: K-562 nuclear extract: sc-2130 or Sol8 nuclear extract: sc-2157.

STORAGE

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

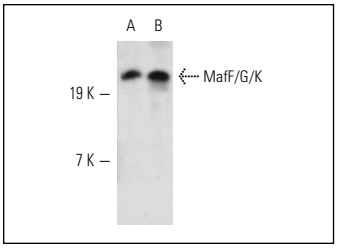
PROTOCOLS

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

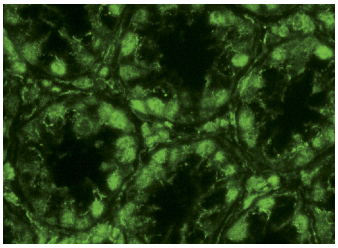
RESEARCH USE

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

DATA



MafF/G/K (H-100): sc-22831. Western blot analysis of MafF/G/K expression in K-562 (**A**) and Sol8 (**B**) nuclear extracts.



MafF/G/K (H-100): sc-22831. Immunofluorescence staining of normal mouse intestine frozen section showing nuclear staining.

SELECT PRODUCT CITATIONS

1. Slonchak, A.M., et al. 2007. Some aspects of glutathione S-transferase P1-1 gene transcription regulation in human placenta. Ukr. Biokhim. Zh. 79: 67-75.
2. Du, M.J, et al. 2008. MafK/NF-E2 p18 is required for β-globin genes activation by mediating the proximity of LCR and active β-globin genes in MEL cell line. Int. J. Biochem. Cell Biol.40: 1481-1493.
3. Slonchak, A.M., et al. 2009. Transcription regulation in differential expression of the human GSTP1 gene in breast and choriocarcinoma cells. Ukr. Biokhim. Zh. 81: 48-58.
4. Slonchak,, et al. 2009. Crosstalk between transcription factors in regulation of the human glutathione S-transferase P1 gene expression in Me45 melanoma cells. Biopolymers Cell 25: 210-217
5. Schaedler, S., et al. 2010. Hepatitis B virus induces expression of antioxidant response element-regulated genes by activation of Nrf2. J. Biol. Chem. 285: 41074-41086.
6. Jyrkkanen, H.K., et al. 2011. Novel insights into the regulation of the antioxidant response element mediated gene expression by electrophiles: induction of the transcriptional repressor BACH1 by NRF2. Biochem. J. 440: 167-174.
7. Hou, Y., et al. 2012. Nuclear factor erythroid-derived factor 2-related factor 2 regulates transcription of CCAAT/enhancer-binding protein β during adipogenesis. Free Radic. Biol. Med. 52: 462-472.