

## c-Maf (6B8): sc-293420



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 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 TCF-11/Nrf1/LCRF1. *Nucleic Acids Res.* 24: 4289-4297.
5. Matsushima-Hibiya, Y., et al. 1998. Rat Maf-related factors: the specificities of DNA binding and heterodimer formation. *Biochem. Biophys. Res. Commun.* 245: 412-418.
6. Hedge, S.P., et al. 1998. c-Maf interacts with c-Myb to regulate transcription of an early myeloid gene during differentiation. *Mol. Cell. Biol.* 18: 2729-2737.

## CHROMOSOMAL LOCATION

Genetic locus: MAF (human) mapping to 16q23.2; Maf (mouse) mapping to 8 E1.

## SOURCE

c-Maf (6B8) is a mouse monoclonal antibody raised against amino acids 304-403 representing partial length c-Maf of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

c-Maf (6B8) is recommended for detection of c-Maf 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for c-Maf siRNA (h): sc-38111, c-Maf siRNA (m): sc-38112, c-Maf shRNA Plasmid (h): sc-38111-SH, c-Maf shRNA Plasmid (m): sc-38112-SH, c-Maf shRNA (h) Lentiviral Particles: sc-38111-V and c-Maf shRNA (m) Lentiviral Particles: sc-38112-V.

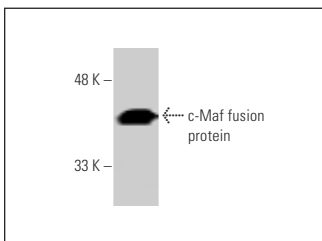
Molecular Weight of c-Maf: 50 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

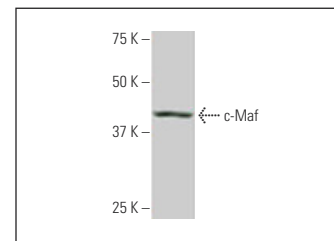
## RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



c-Maf (6B8): sc-293420. Western blot analysis of human recombinant c-Maf fusion protein.



c-Maf (6B8): sc-293420. Western blot analysis of c-Maf expression in PC-12 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Sun, X., et al. 2019. Vasoactive intestinal peptide stabilizes intestinal immune homeostasis through maintaining interleukin-10 expression in regulatory B cells. *Theranostics* 9: 2800-2811.
2. Yu, S., et al. 2021. HuR plays a positive role to strengthen the signaling pathways of CD4<sup>+</sup> T cell activation and Th17 cell differentiation. *J. Immunol. Res.* 2021: 9937243.

## STORAGE

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

## RESEARCH USE

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