

MAF1 (G-5): sc-365312

BACKGROUND

MAF1 is a 256 amino acid protein that localizes to the nucleus and is the human homolog of the yeast Maf1 protein. Interacting with BRF2, MAF1 functions to mediate signals that specifically repress the activity of RNA polymerase III (Pol III), specifically by inhibiting the assembly of TFIIB onto DNA. The gene encoding MAF1 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

1. Pluta, K., et al. 2001. MAF1p, a negative effector of RNA polymerase III in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 21: 5031-5040.
2. Upadhy, R., et al. 2002. MAF1 is an essential mediator of diverse signals that repress RNA polymerase III transcription. *Mol. Cell* 10: 1489-1494.

CHROMOSOMAL LOCATION

Genetic locus: MAF1 (human) mapping to 8q24.3; Maf1 (mouse) mapping to 15 D3.

SOURCE

MAF1 (G-5) is a mouse monoclonal antibody raised against amino acids 1-256 representing full length MAF1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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-365312 X, 200 µg/0.1 ml.

APPLICATIONS

MAF1 (G-5) is recommended for detection of MAF1 of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (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 MAF1 siRNA (h): sc-75731, MAF1 siRNA (m): sc-75732, MAF1 shRNA Plasmid (h): sc-75731-SH, MAF1 shRNA Plasmid (m): sc-75732-SH, MAF1 shRNA (h) Lentiviral Particles: sc-75731-V and MAF1 shRNA (m) Lentiviral Particles: sc-75732-V.

MAF1 (G-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

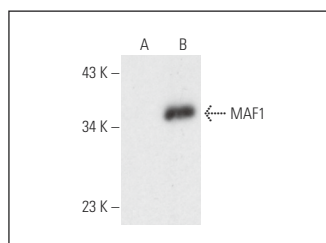
Molecular Weight of MAF1: 35 kDa.

Positive Controls: MAF1 (m): 293T Lysate: sc-121484.

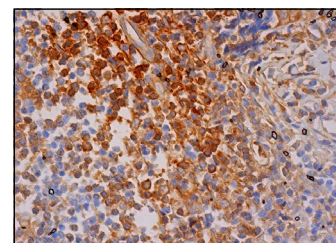
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MAF1 (G-5): sc-365312. Western blot analysis of MAF1 expression in non-transfected: sc-117752 (A) and mouse MAF1 transfected: sc-121484 (B) 293T whole cell lysates.



MAF1 (G-5): sc-365312. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in non-germinal centers.

SELECT PRODUCT CITATIONS

1. Van Bortle, K., et al. 2017. Topological organization and dynamic regulation of human tRNA genes during macrophage differentiation. *Genome Biol.* 18: 180.
2. Sun, Y., et al. 2019. Maf1 ameliorates cardiac hypertrophy by inhibiting RNA polymerase III through ERK1/2. *Theranostics* 9: 7268-7281.

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.

PROTOCOLS

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