

MAF1 (FL-256): sc-98715

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. Upadhyay, R., et al. 2002. MAF1 is an essential mediator of diverse signals that repress RNA polymerase III transcription. *Mol. Cell* 10: 1489-1494.
3. Oficjalska-Pham, D., et al. 2006. General repression of RNA polymerase III transcription is triggered by protein phosphatase type 2A-mediated dephosphorylation of MAF1. *Mol. Cell* 22: 623-632.
4. Roberts, D.N., et al. 2006. Dephosphorylation and genome-wide association of MAF1 with Pol III-transcribed genes during repression. *Mol. Cell* 22: 633-644.
5. Rollins, J., et al. 2007. Human MAF1 negatively regulates RNA polymerase III transcription via the TFIIB family members Brf1 and Brf2. *Int. J. Biol. Sci.* 3: 292-302.
6. Johnson, S.S., et al. 2007. Mammalian MAF1 is a negative regulator of transcription by all three nuclear RNA polymerases. *Mol. Cell* 26: 367-379.
7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610210. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

SOURCE

MAF1 (FL-256) is a rabbit polyclonal antibody raised against amino acids 1-256 representing full length MAF1 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98715 X, 200 µg/0.1 ml.

RESEARCH USE

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

APPLICATIONS

MAF1 (FL-256) is recommended for detection of MAF1 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), 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).

MAF1 (FL-256) is also recommended for detection of MAF1 in additional species, including equine, canine, bovine and porcine.

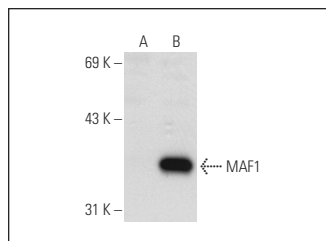
Suitable for use as control antibody for MAF1 siRNA (h): sc-75731, MAF1 siRNA (m): sc-75732, MAF1 shRNA Plasmid (h): sc-75731-SH, MAF1 shRNA Plasmid (m): sc-75732-SH, MAF1 shRNA (h) Lentiviral Particles: sc-75731-V and MAF1 shRNA (m) Lentiviral Particles: sc-75732-V.

MAF1 (FL-256) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

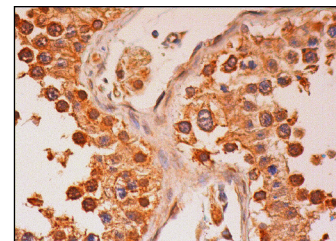
Molecular Weight of MAF1: 35 kDa.

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

DATA



MAF1 (FL-256): sc-98715. Western blot analysis of MAF1 expression in non-transfected: sc-117752 (A) and mouse MAF1 transfected: sc-121484 (B) 293T whole cell lysates.



MAF1 (FL-256): sc-98715. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

1. Shor, B., et al. 2010. Requirement of the mTOR kinase for the regulation of Maf1 phosphorylation and control of RNA polymerase III-dependent transcription in cancer cells. *J. Biol. Chem.* 285: 15380-15392.
2. Michels, A.A., et al. 2010. mTORC1 directly phosphorylates and regulates human MAF1. *Mol. Cell. Biol.* 30: 3749-3757.

STORAGE

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



Try **MAF1 (G-5): sc-365312** or **MAF1 (H-2): sc-515614**, our highly recommended monoclonal alternatives to MAF1 (FL-256).