SANTA CRUZ BIOTECHNOLOGY, INC.

MAZ (75C4a): sc-81320



BACKGROUND

The Myc-associated zinc finger protein MAZ (also designated ZF87, and Pur-1 in mouse) is a transcription factor that participates in both the initiation and termination of transcription of target genes. MAZ functions as a true transcriptional repressor in that it represses transcription independent of the c-Myc promoter. Both MAZ and Sp1 bind to the parathyroid hormone (PTH)/ PTH-related peptide receptor promoter, thereby influencing the cell-specific expression of its gene product. MAZ and Sp1 also regulate expression from the serotonin 1A receptor gene promoter, suggesting that MAZ may act on a variety of promoters through G-C rich sequences, which serve as binding sites for the Sp1 family of transcription factors. Competition between Sp1 and MAZ control tissue-specific expression of the PNMT gene. The interaction of MAZ with the transcriptional repressor FAC1 may affect gene regulation in neurodegeneration. MAZ also acts as a growth suppressor protein, in part by affecting the levels of key cell cycle regulatory proteins such as cyclin A and E.

REFERENCES

- 1. Parks, C.L. and Shenk, T. 1996. The serotonin 1A receptor gene contains a TAT-less promoter that responds to MAZ and Sp1. J. Biol. Chem. 271: 4417-4430.
- Song, J., et al. 1998. Genomic organization and expression of a human gene for Myc-associated zinc finger protein (MAZ). J. Biol. Chem. 273: 20603-20614.
- 3. Song, J., et al. 1998. Human genes for KNSL4 and MAZ are located close to one another on chromosome 16p11.2. Genomics 52: 374-377.
- Song, J., et al. 1999. Structural organization and expression of the mouse gene for Pur-1, a highly conserved homolog of the human MAZ gene. Eur. J. Biochem. 259: 676-683.
- Her, S., et al. 1999. Phenylethanolamine N-methyltransferase gene expression. Sp1 and MAZ potential for tissue-specific expression. J. Biol. Chem. 274: 8698-8707.
- Izzo, M.W., et al. 1999. Transcriptional repression from the c-Myc P2 promoter by the zinc finger protein ZF87/MAZ. J. Biol. Chem. 274: 19498-19506.
- Williams, L.J. and Abou-Samra, A.B. 2000. The transcription factors Sp1 and MAZ regulate expression of the parathyroid hormone/parathyroid hormone-related peptide receptor gene. J. Mol. Endocrinol. 25: 309-310.
- Jordan-Sciutto, K.L., et al. 2000. Fetal Alz-50 clone 1 (FAC1) protein interacts with the Myc-associated zinc finger protein (ZF87/MAZ) and alters its transcriptional activity. Biochemistry 39: 3206-3215.
- 9. Stubbs, M.C., et al. 2000. The ZF87/MAZ transcription factor functions as a growth suppressor in fibroblasts. Biochem. Cell Biol. 78: 477-485.

CHROMOSOMAL LOCATION

Genetic locus: MAZ (human) mapping to 16p11.2.

SOURCE

MAZ (75C4a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of MAZ of human origin.

PRODUCT

Each vial contains 100 $\mu g~lgG_1$ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

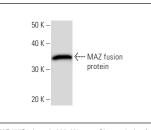
APPLICATIONS

MAZ (75C4a) is recommended for detection of MAZ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for MAZ siRNA (h): sc-38035, MAZ shRNA Plasmid (h): sc-38035-SH and MAZ shRNA (h) Lentiviral Particles: sc-38035-V.

Molecular Weight of MAZ: 60 kDa.

DATA



MAZ (75C4a): sc-81320. Western Blot analysis of human recombinant MAZ fusion protein.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/ thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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