SANTA CRUZ BIOTECHNOLOGY, INC.

p-MAZ (Ser 460)-R: sc-16318-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

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. Phosphorylation of MAZ by CKII at Ser 480 is required for maximum binding of MAZ to the 5'-end promoter region of the c-myc gene, suggesting that phosphorylation of this site may control MAZ function by altering its DNA-binding activity.

REFERENCES

1. Parks, C.L., et al. 1996. The serotonin 1α receptor gene contains a TATA-less promoter that responds to MAZ and Sp1. J. Biol. Chem. 271: 4417-4430.
2. 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.
4. 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.
5. Her, S., et al. 1999. Phenylethanolamine N-methyltransferase gene expression. Sp1 and MAZ potential for tissue-specific expression. J. Biol. Chem. 274: 8698-8707.
6. 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.
7. Tsutsui, H., et al. 1999. The DNA-binding and transcriptional activities of MAZ, a Myc-associated zinc finger protein, are regulated by casein kinase II. Biochem. Biophys. Res. Commun. 19: 198-205.
8. Williams, L.J., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: MAZ (human) mapping to 16p11.2; Maz (mouse) mapping to 7 F3.

STORAGE

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

SOURCE

p-MAZ (Ser 460)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 460 phosphorylated MAZ 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.

Blocking peptide available for competition studies, sc-16318 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-MAZ (Ser 460)-R is recommended for detection of Ser 460 phosphorylated MAZ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for MAZ siRNA (h): sc-38035, MAZ siRNA (m): sc-38036, MAZ shRNA Plasmid (h): sc-38035-SH, MAZ shRNA Plasmid (m): sc-38036-SH, MAZ shRNA (h) Lentiviral Particles: sc-38035-V and MAZ shRNA (m) Lentiviral Particles: sc-38036-V.

Molecular weight of p-MAZ: 60 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000); Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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