SANTA CRUZ BIOTECHNOLOGY, INC.

ZMAT4 (F-6): sc-514072

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. Zinc finger matrin-type protein 4 (ZMAT4) is a 229 amino acid protein that contains 4 matrin-type zinc fingers. The matrin-type zinc finger, which is very similar in structure to the classical DNA-binding C_2H_2 zinc finger, was first identified in the protein matrin-3. It has also been identified in several spliceosome RNA-binding proteins, suggesting a role in pre-mRNA binding. ZMAT4 is localized to the nucleus, and two isoforms of this protein exist as a result of alternative splicing events.

REFERENCES

1. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. New Biol. 2: 363-374.
2. Rossi, F., et al. 1996. Involvement of U1 small nuclear ribonucleoproteins (snRNP) in 5' splice site-U1 snRNP interaction. J. Biol. Chem. 271: 23985-23991.
3. Matsushima, Y., et al. 1997. Zinc finger-like motif conserved in a family of RNA binding proteins. Biosci. Biotechnol. Biochem. 61: 905-906.
4. Hibino, Y. 2000. Functional arrangement of genomic DNA and structure of nuclear matrix. Yakugaku Zasshi 120: 520-533.
5. Durand, S., et al. 2003. Identi-fication of multiple differentially expressed messenger RNAs in normal and pathological trophoblast. Placenta 24: 209-218.
6. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C_2H_2 zinc-finger transcription factors. Bioinformatics 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: ZMAT4 (human) mapping to 8p11.21; Zmat4 (mouse) mapping to 8 A2.

SOURCE

ZMAT4 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-19 at the N-terminus of ZMAT4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ZMAT4 (F-6) is available conjugated to agarose (sc-514072 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514072 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514072 PE), fluorescein (sc-514072 FITC), Alexa Fluor® 488 (sc-514072 AF488), Alexa Fluor® 546 (sc-514072 AF546), Alexa Fluor® 594 (sc-514072 AF594) or Alexa Fluor® 647 (sc-514072 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514072 AF680) or Alexa Fluor® 790 (sc-514072 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ZMAT4 (F-6) is recommended for detection of ZMAT4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZMAT4 siRNA (h): sc-77490, ZMAT4 siRNA (m): sc-155629, ZMAT4 shRNA Plasmid (h): sc-77490-SH, ZMAT4 shRNA Plasmid (m): sc-155629-SH, ZMAT4 shRNA (h) Lentiviral Particles: sc-77490-V and ZMAT4 shRNA (m) Lentiviral Particles: sc-155629-V.

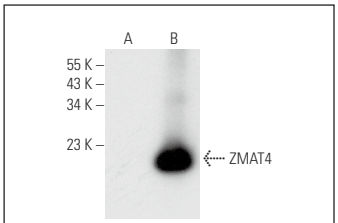
Molecular Weight of ZMAT4: 26 kDa.

Positive Controls: ZMAT4 (h): 293T Lysate: sc-113870.

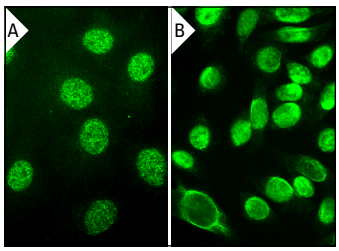
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ZMAT4 (F-6): sc-514072. Western blot analysis of ZMAT4 expression in non-transfected: sc-117752 (**A**) and human ZMAT4 transfected: sc-113870 (**B**) 293T whole cell lysates.



ZMAT4 (F-6): sc-514072. Immunofluorescence staining of methanol-fixed HeLa (**A**) and SW480 (**B**) cells showing nuclear localization.

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.