SANTA CRUZ BIOTECHNOLOGY, INC.

MAT Iα (Z-22): sc-133772

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Methionine adenosyltransferase (MAT) catalyzes the formation of S-adenosyltransferase (AdoMet) for methionine catabolism in the liver. Two different genes, MAT1A and MAT2A, encode a liver specific and non-liver specific form of MAT, designated MAT Iα and MAT IIα, respectively. Inactivation of the liver specific gene product, designated MAT I/III, associates with liver diseases such as cirrhosis. MAT Iα expression also correlates with a differentiated phenotype, whereas liver cells expressing MAT IIα present a dedifferentiated phenotype and lowered AdoMet synthesis. Likewise, NFκB and TNFα cause a switch from MAT Iα to MAT IIα expression in human hepatocellular carcinoma (HCC), which facilitates cancer cell growth.

REFERENCES

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STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: MAT1A (human) mapping to 10q23.1.

SOURCE

MAT Iα (Z-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic MAT Iα peptide of human origin.

PRODUCT

Each vial contains 100 µg of IgG in PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

MAT Iα (Z-22) is recommended for detection of MAT Iα of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MAT Iα siRNA (h): sc-106202, MAT Iα shRNA Plasmid (h): sc-106202-SH and MAT Iα shRNA (h) Lentiviral Particles: sc-106202-V.

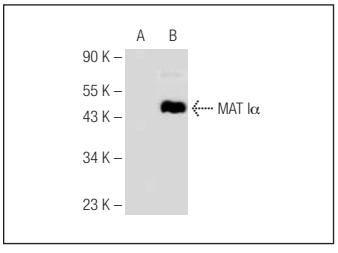
Molecular Weight of MAT Iα: 44 kDa.

Positive Controls: MAT Iα (h): 293 Lysate: sc-113327 or human fetal liver tissue extract.

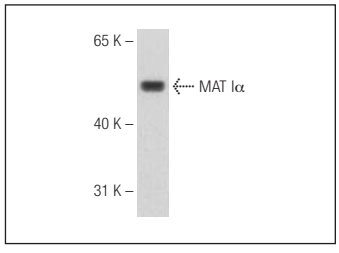
RECOMMENDED SECONDARY REAGENTS

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 A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



MAT Iα (Z-22): sc-133772. Western blot analysis of MAT Iα expression in non-transfected: sc-110760 (**A**) and human MAT Iα transfected: sc-113327 (**B**) 293 whole cell lysates.



MAT Iα (Z-22): sc-133772. Western blot analysis of MAT Iα expression in human fetal liver tissue extract.

RESEARCH USE

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