

# MAT II $\beta$ (H-4): sc-514069

## BACKGROUND

Methionine adenosyltransferase (MAT) catalyzes the formation of S-adenosyltransferase (AdoMet) for methionine catabolism in the liver. MAT II $\beta$  (methionine adenosyltransferase II,  $\beta$ ), also known as TGR, MAT-II or SDR23E1, is a 334 amino acid protein that is widely expressed and plays an important role in amino acid biosynthesis. Existing as a heterotetramer with two MAT II $\alpha$  subunits, MAT II $\beta$  functions as a non-catalytic regulatory protein that mediates the activity of MAT II $\alpha$ , specifically by changing the kinetic properties of MAT II $\alpha$ , thereby rendering it more susceptible to inhibition. MAT II $\beta$  is expressed in hepatoma cells and is thought to play a role in cell proliferation, possibly by increasing the rate of DNA synthesis. Multiple isoforms of MAT II $\beta$  exist due to alternative splicing events.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: MAT2B (human) mapping to 5q34; Mat2b (mouse) mapping to 11 A5.

## SOURCE

MAT II $\beta$  (H-4) is a mouse monoclonal antibody raised against amino acids 35-334 mapping at the C-terminus of MAT II $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\kappa$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

MAT II $\beta$  (H-4) is recommended for detection of MAT II $\beta$  of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 MAT II $\beta$  siRNA (h): sc-75753, MAT II $\beta$  siRNA (m): sc-75754, MAT II $\beta$  shRNA Plasmid (h): sc-75753-SH, MAT II $\beta$  shRNA Plasmid (m): sc-75754-SH, MAT II $\beta$  shRNA (h) Lentiviral Particles: sc-75753-V and MAT II $\beta$  shRNA (m) Lentiviral Particles: sc-75754-V.

Molecular Weight of MAT II $\beta$ : 38 kDa.

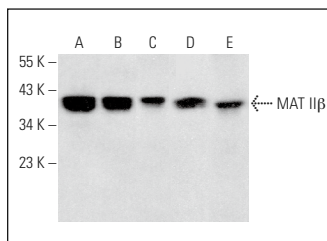
Positive Controls: Jurkat whole cell lysate: sc-2204, Hep G2 cell lysate: sc-2227 or ALL-SIL whole cell lysate: sc-364356.

## RECOMMENDED SUPPORT REAGENTS

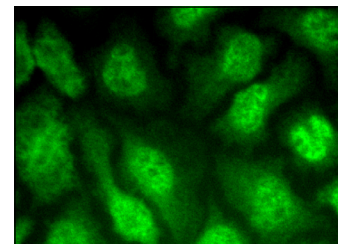
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



MAT II $\beta$  (H-4): sc-514069. Western blot analysis of MAT II $\beta$  expression in Jurkat (A), ALL-SIL (B), Hep G2 (C) and PC-12 (D) whole cell lysates and rat liver tissue extract (E).



MAT II $\beta$  (H-4): sc-514069. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic 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](http://www.scbt.com) for detailed protocols and support products.