**BACKGROUND**

Methionine adenosyltransferase (MAT) catalyzes the formation of S-adenosylmethionine (AdoMet) for methionine catabolism in the liver. MAT IIβ (methionine adenosyltransferase II, β), 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 IIβ subunits, MAT IIβ functions as a non-catalytic regulatory protein that mediates the activity of MAT IIα, specifically by changing the kinetic properties of MAT IIα, thereby rendering it more susceptible to inhibition. MAT IIβ 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 IIβ exist due to alternative splicing events.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

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

**PRODUCT**

Each vial contains 200 µg IgG; kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

MAT IIβ (H-4) is recommended for detection of MAT IIβ 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 MAT IIβ siRNA (h): sc-75753, MAT IIβ siRNA (m): sc-75754, MAT IIβ shRNA Plasmid (h): sc-75753-SH, MAT IIβ shRNA Plasmid (m): sc-75754-SH, MAT IIβ siRNA (h) Lentiviral Particles: sc-75753-V and MAT IIβ siRNA (m) Lentiviral Particles: sc-75754-V.

Molecular Weight of MAT IIβ: 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-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® Hard-set Mounting Medium: sc-24941 or UltraCruz® Mounting Medium: sc-359850.

**DATA**

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

**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.