MAT Iα/IIα (A-10): sc-166183

**BACKGROUND**

Methionine adenosyltransferase (MAT) catalyzes the formation of S-adenosylmethionine (AdoMet) from methionine. Two different genes, MAT1A and MAT2A, encode liver-specific and non-liver-specific forms of MAT, respectively. Inactivation of the liver-specific gene product, designated MAT I/III, is associated with liver diseases such as cirrhosis. MAT1α expression also correlates with a differentiated phenotype, whereas liver cells expressing MAT2A present a dedifferentiated phenotype and lowered AdoMet synthesis. Likewise, NFκB and TNFα cause a switch from MAT1A to MAT2A expression in human hepatocellular carcinoma (HCC), which facilitates cancer cell growth.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MAT1A (human) mapping to 10q23.1, MAT2A (human) mapping to 2p11.2; Mat1α (mouse) mapping to 14 B, Mat2α (mouse) mapping to 6 C1.

**SOURCE**

MAT Iα/Iκα (A-10) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MAT Iκα of human origin.

**PRODUCT**

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

**RESEARCH USE**

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

**APPLICATIONS**

MAT Iκα/Iκα (A-10) is recommended for detection of MAT Iκα and MAT IIκα 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), 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-516140 or m-IgGk 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**

**STORAGE**

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

**PROTOCOLS**

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