**BACKGROUND**

Aspartate aminotransferase (AAT) is an ubiquitous pyridoxal phosphate-dependent enzyme, which exists in both mitochondrial (AATM) and cytosolic (AATC) forms. The enzyme plays an important role in amino acid metabolism and in the urea and tricarboxylic acid cycles by catalyzing the conversion of L-aspartate and 2-oxoglutarate to oxaloacetate and L-glutamate. The two isoenzymes are homodimeric, but differ in expression patterns. Approximately 80% of the enzyme activity in liver is of mitochondrial origin, whereas in serum the enzyme activity is largely cytosolic. AATC and AATM share nearly identical three-dimensional structures, but differ in their folding rates and in their affinity for binding to molecular chaperones, including GroEL.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GOT2 (human) mapping to 16q21; Got2 (mouse) mapping to 8 D1.

**SOURCE**

AATM (E-7) is a mouse monoclonal antibody raised against amino acids 141-211 mapping within an internal region of AATM of human origin.

**PRODUCT**

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

**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.

**APPLICATIONS**

AATM (E-7) is recommended for detection of AATM 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 1:30-1:300).

Suitable for use as control antibody for AATM siRNA (h): sc-60052, AATM siRNA (m): sc-60055, AATM shRNA Plasmid (h): sc-60052-SH, AATM shRNA Plasmid (m): sc-60055-SH, AATM shRNA (h) Lentiviral Particles: sc-60052-V and AATM shRNA (m) Lentiviral Particles: sc-60055-V.

Molecular Weight of AATM: 43 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, Raji whole cell lysate: sc-364236 or WEHI-231 whole cell lysate: sc-2213.

**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**

AATM (E-7); sc-271702. Western blot analysis of AATM expression in Caik-1 (A), Raji (B), WEHI-231 (C), c4 (D), Neuro-2A (E) and C6 (F) whole cell lysates.

**PROTOCOLES**

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