SANTA CRUZ BIOTECHNOLOGY, INC.

Mpi (h): 293T Lysate: sc-115944

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mpi (mannose phosphate isomerase), also known as PMI (phosphomannose isomerase) or PMI1, is a 423 amino acid zinc metalloenzyme belonging to the mannose-6-phosphate isomerase type 1 family, and is expressed in all tissues, more abundantly in heart, brain and skeletal muscle. A steady supply of D-mannose derivatives, which are required for most glycosylation reactions, is maintained by Mpi. Localized to the cytoplasm, Mpi utilizes zinc as a cofactor and catalyzes the interconversion of fructose-6-phosphate and mannose-6-phosphate. Mutations in the gene encoding Mpi lead to congenital disorder of glycosylation type 1B (CDG1B), also designated carbohydrate-deficient glycoprotein syndrome type Ib (CDGS1B), which is characterized by protein-losing enteropathy. Congenital disorders of glycosylation are metabolic deficiencies in glycoprotein biosynthesis that usually results in severe mental and psychomotor retardation.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MPI (human) mapping to 15q24.1.

PRODUCT

Mpi (h): 293T Lysate represents a lysate of human Mpi transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Mpi (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Mpi antibodies. Recommended use: 10-20 µl per lane.

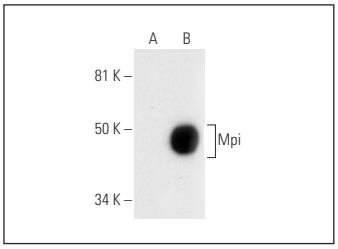
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Mpi (E-4): sc-393477 is recommended as a positive control antibody for Western Blot analysis of enhanced human Mpi expression in Mpi transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

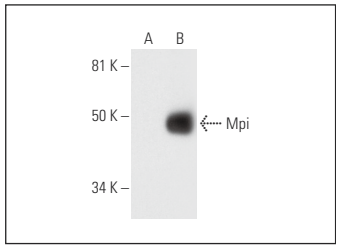
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Mpi (E-4): sc-393477. Western blot analysis of Mpi expression in non-transfected: sc-117752 (**A**) and human Mpi transfected: sc-115944 (**B**) 293T whole cell lysates.



Mpi (B-2): sc-393484. Western blot analysis of Mpi expression in non-transfected: sc-117752 (**A**) and human Mpi transfected: sc-115944 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.