**BACKGROUND**

Glycolysis is an evolutionarily conserved series of ten chemical reactions that utilizes triosephosphate isomerase, known as TIM or TPI, to generate pyruvate and ATP from glucose. This enzyme catalyzes the interconversion of dihydroxyacetone phosphate (DHAP) and glyceraldehyde-3-phosphate in the glycolytic pathway. The human TIM gene spans 3.5 kilobase pairs, contains seven exons and encodes a 538 amino acid protein. The TIM promoter element contains a TATA box (positions -27 to -21) and multiple GC boxes (positions -126 to -48) that variably conform to the consensus Sp1-binding site. The GC boxes function in cis to the TATA box to control both the frequency and position of transcription initiation. Deficiencies in TIM result in a rare autosomal recessive condition where a metabolic block in glycolysis and accumulating DHAP in erythrocytes can lead to non-spherocytic hemolytic anemia, recurrent infections, cardiomyopathy and neuromuscular dysfunctions.

**REFERENCES**


**CHROMOSOMAL LOCATION**

- Genetic locus: TPI1 (human) mapping to 12p13.31; Tpi1 (mouse) mapping to 6 F2.

**SOURCE**

TIM (BB-7) is a mouse monoclonal antibody raised against recombinant TIM of human origin.

**PRODUCT**

Each vial contains 100 µg IgG; 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.

**APPLICATIONS**

TIM (BB-7) is recommended for detection of TIM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 TIM siRNA (h): sc-37172, TIM siRNA (m): sc-37173, TIM shRNA Plasmid (h): sc-37172-SH, TIM shRNA Plasmid (m): sc-37173-SH, TIM shRNA (h) Lentiviral Particles: sc-37172-V and TIM shRNA (m) Lentiviral Particles: sc-37173-V.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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).

**DATA**

![TIM (BB-7) Western blot analysis of TIM expression in Sol8 whole cell lysate.](image)

![TIM (BB-7) Immunofluorescence staining of methanol-fixed Hep G2 cells showing nuclear and cytoplasmic localization.](image)

**SELECT PRODUCT CITATIONS**


**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.