**BACKGROUND**

Trehalase, also known as TREH, TREA or α,α-trehalose glucohydrolase, is a 583 amino acid protein belonging to the glycosyl hydrolase 37 family. Localization to cell membrane and lipid-anchor, Trehalase is expressed in kidney, liver, and small intestine. Trehalase hydrolyses ingested trehalase, a disaccharide formed by two glucose molecules found mainly in insects, fungi, and plants, into cellular substrate glucose. Isolated trehalose intolerance due to deficiencies of Trehalase can result in gastrointestinal symptoms. Trehalase may also be a marker for renal tubular damage, and may contain an N-terminal signal peptide, five potential N-glycosylation sites, and a C-terminal hydrophobic region for glycosylphosphatidylinositol (GPI) attachment. Existing as two alternatively spliced isoforms, the gene encoding Trehalase maps to human chromosome 11q23.3.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TREH (human) mapping to 11q23.3; Treh (mouse) mapping to 9 A5.2.

**SOURCE**

Trehalase (D-2) is a mouse monoclonal antibody raised against amino acids 181-405 mapping within an internal region of Trehalase 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**

Trehalase (D-2) is recommended for detection of Trehalase 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 Trehalase siRNA (h): sc-96445, Trehalase siRNA (m): sc-154626, Trehalase shRNA Plasmid (h): sc-96445-SH, Trehalase shRNA Plasmid (m): sc-154626-SH, Trehalase shRNA (h) Lentiviral Particles: sc-96445-V and Trehalase shRNA (m) Lentiviral Particles: sc-154626-V.

Molecular Weight of Trehalase isoforms 1/2: 67/63 kDa.

Positive Controls: Trehalase (m): 293T Lysate: sc-124274 or human kidney extract: sc-363764.

**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, TBS Blotto A Blocking Reagent: sc-2333 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**

**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.