Sucrase-Isomaltase (SI) is a type II brush border membrane protein that plays an important role in the final stage of carbohydrate digestion. Sucrase-Isomaltase is a disaccharidase that catalyzes the hydrolysis of dietary sucrose and maltose and other products of starch digestion. The high degree of amino acid homology between isomaltase and sucrose indicates that the Sucrase-Isomaltase protein was evolved by partial gene duplication. The Sucrase-Isomaltase precursor is proteolytically cleaved when exposed to pancreatic proteases in the intestinal lumen and localizes to the apical membrane of adult intestinal enterocytes along the intestinal crypt-villus axis. Sucrase-Isomaltase protein deficiency results in osmotic diarrhea due to an inability to hydrolyze intestinal disaccharides into component monosaccharides. Congenital Sucrase-Isomaltase deficiency (CSID) is an autosomal recessive human disorder characterized by reduced activities of Sucrase-Isomaltase.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: SI (human) mapping to 3q26.1; Sis (mouse) mapping to 3 E3.

**SOURCE**

Sucrase-Isomaltase (C-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 136-167 near the N-terminus of Sucrase-Isomaltase of rat 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.

Sucrase-Isomaltase (C-8) is available conjugated to agarose (sc-393470 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393470 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393470 PE), fluorescein (sc-393470 FITC), Alexa Fluor® 488 (sc-393470 AF488), Alexa Fluor® 546 (sc-393470 AF546), Alexa Fluor® 594 (sc-393470 AF594) or Alexa Fluor® 647 (sc-393470 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393470 AF680) or Alexa Fluor® 790 (sc-393470 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393470 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

Sucrase-Isomaltase (C-8) is recommended for detection of precursor and mature isomaltase isoform of Sucrase-Isomaltase 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).

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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