**BACKGROUND**

Trimming of glucose from N-linked core glycans on newly synthesized glycoproteins occurs sequentially through the action of Glucosidases I and II in the endoplasmic reticulum (ER). Glucosidase II is an ER-localized enzyme that contains α and β subunits (Glucosidase Iβ and Glucosidase IIβ). The α and β subunits form a defined heterodimeric complex. Glucosidase Iα is the catalytic core of the enzyme and can function independently of the β subunit. The sequence of Glucosidase Iβ encodes protein rich in glutamic and aspartic acid with a putative ER retention signal (HDEL) at the C terminus. The phosphorylated form of Glucosidase Iβ encodes protein rich in glutamic and aspartic acid with a putative ER retention signal (HDEL) at the C terminus. Glucosidase Iβ was first purified from a human carcinoma cell line as a potential substrate for protein kinase C. Through the HD EL signal at the C-terminus, Glucosidase Iβ retains the complete complex in the ER.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.2% stabilizer protein. Glucosidase Iβ (H-4) is available conjugated to agarose (sc-374457 AC, 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-374457 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-374457 PE), fluorescein (sc-374457 FITC), Alexa Fluor® 488 (sc-374457 AF488), Alexa Fluor® 546 (sc-374457 AF546), Alexa Fluor® 594 (sc-374457 AF594) or Alexa Fluor® 647 (sc-374457 AF647), 200 µg/ml; for WB (RGB), IF, HICP and FCM; and to either Alexa Fluor® 680 (sc-374457 AF680) or Alexa Fluor® 790 (sc-374457 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374457 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**SOURCE**

Glucosidase Iβ (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 9-41 near the N-terminus of Glucosidase Iβ of human origin.

**CHROMOSOMAL LOCATION**

Genetic locus: PRKCSH (human) mapping to 19p13.2; Prkcsh (mouse) mapping to 9A3.

**APPLICATIONS**

Glucosidase Iβ (H-4) is recommended for detection of the β subunit of Glucosidase II 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).

Glucosidase Iβ (H-4) is also recommended for detection of the β subunit of Glucosidase II in additional species, including canine and porcine.

Suitable for use as control antibody for Glucosidase Iβ siRNA (h); sc-29598, Glucosidase Iβ siRNA (m); sc-29599, Glucosidase Iβ shRNA Plasmid (h); sc-29598-SH, Glucosidase Iβ shRNA Plasmid (m); sc-29599-SH, Glucosidase Iβ shRNA (h) Lentiviral Particles: sc-29598-V and Glucosidase Iβ shRNA (m) Lentiviral Particles: sc-29599-V.

**CHROMOSOMAL LOCATION**

Genetic locus: PRKCSH (human) mapping to 19p13.2; Prkcsh (mouse) mapping to 9A3.

**Recommended Support Reagents**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: m-IgG HRP: sc-516102 or m-IgG B-HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™

2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG κ B P-HRP: sc-516102 or m-IgG κ B P-FITC: sc-516140 or m-IgG κ B P-PE: sc-516141 (dilution range 1:10-1:200) with UltraCruz® Mounting Reagent: sc-2048.

4) Immunohistochemistry: use m-IgG B P-HRP: sc-516102 or m-IgG B P-PE: sc-516141 (dilution range 1:10-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

5) Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

**STORAGE**

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

**PROTOCOLS**

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

**DATA**

**RESEARCH USE**

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