SANTA CRUZ BIOTECHNOLOGY, INC.

# Glucosidase IIβ (H-195): sc-10774

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Trimming of glucoses 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 IIα and Glucosidase IIβ) which form a defined heterodimeric complex. Glucosidase IIα is the catalyitc core of the enzyme and can function independently of the β subunit. The sequence of Glucosidase IIβ encodes protein rich in glutamic and aspartic acid with a putative ER retention signal (HDEL) at the C-terminus. The phosphorylated form of Glucosidase IIβ is localized in the plasma membrane and is highly expressed in FGF-stimulated fibroblasts and epidermal carcinoma cells. Glucosidase IIβ was first purified from a human carcinoma cell line as a potential substrate for protein kinase C. Through the HDEL signal at the C-terminus, Glucosidase IIβ retains the complete complex in the ER.

## CHROMOSOMAL LOCATION

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

## SOURCE

Glucosidase IIβ (H-195) is a rabbit polyclonal antibody raised against amino acids 333-527 of Glucosidase IIβ of human origin.

## PRODUCT

Each vial contains 200 µg IgG 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.

## RESEARCH USE

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

## APPLICATIONS

Glucosidase IIβ (H-195) is recommended for detection of the β subunit of Glucosidase II 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), 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).

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

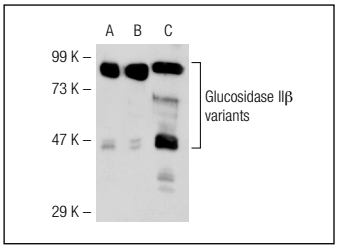
Molecular Weight of Glucosidase IIβ: 80-90 kDa.

Positive Controls: Glucosidase IIβ (m): 293T Lysate: sc-120511, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

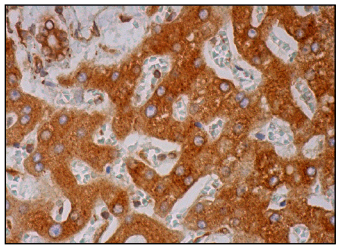
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA




Glucosidase IIβ (H-195): sc-10774. Western blot analysis of Glucosidase IIβ expression in non-transfected 293T: sc-117752 (**A**), mouse Glucosidase IIβ transfected 293T: sc-120511 (**B**) and K-562 (**C**) whole cell lysates.



Glucosidase IIβ (H-195): sc-10774. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes and Bile duct cells.

## SELECT PRODUCT CITATIONS


1. Janssen, M.J., et al. 2011. Secondary, somatic mutations might promote cyst formation in patients with autosomal dominant polycystic liver disease. Gastroenterology 141: 2056-2063.
2. Yang, J., et al. 2011. Deficiency of hepatocystin induces autophagy through an mTOR-dependent pathway. Autophagy 7: 748-759.


## PROTOCOLS

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