

# Glucosidase II $\beta$ (H-4): sc-374457

## 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  $\alpha$  and  $\beta$  subunits (Glucosidase II $\alpha$  and Glucosidase II $\beta$ ). The  $\alpha$  and  $\beta$  subunits form a defined heterodimeric complex. Glucosidase II $\alpha$  is the catalytic core of the enzyme and can function independently of the  $\beta$  subunit. The sequence of Glucosidase II $\beta$  encodes protein rich in glutamic and aspartic acid with a putative ER retention signal (HDEL) at the C terminus. The phosphorylated form of Glucosidase II $\beta$  is localized in the plasma membrane and is highly expressed in FGF stimulated fibroblasts and epidermal carcinoma cells. Glucosidase II $\beta$  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 II $\beta$  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 II $\beta$  (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 9-41 near the N-terminus of Glucosidase II $\beta$  of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Glucosidase II $\beta$  (H-4) is available conjugated to agarose (sc-374457 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374457 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374457 PE), fluorescein (sc-374457 FITC), Alexa Fluor<sup>®</sup> 488 (sc-374457 AF488), Alexa Fluor<sup>®</sup> 546 (sc-374457 AF546), Alexa Fluor<sup>®</sup> 594 (sc-374457 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-374457 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-374457 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-374457 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

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## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

Glucosidase II $\beta$  (H-4) is recommended for detection of the  $\beta$  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  $\mu$ g per 100-500  $\mu$ g 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 II $\beta$  (H-4) is also recommended for detection of the  $\beta$  subunit of Glucosidase II in additional species, including canine and porcine.

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

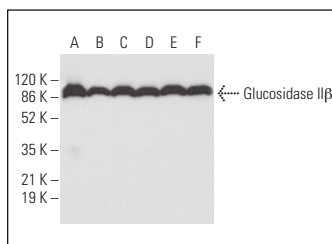
Molecular Weight of Glucosidase II $\beta$ : 80-90 kDa.

Positive Controls: HEL 92.1.7 cell lysate: sc-2270, C2C12 whole cell lysate: sc-364188 or Sol8 cell lysate: sc-2249.

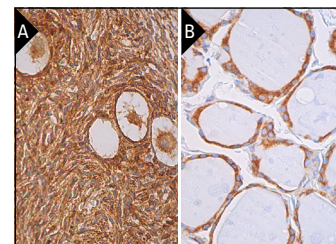
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Glucosidase II $\beta$  (H-4): sc-374457. Western blot analysis of Glucosidase II $\beta$  expression in HEL 92.1.7 (A), C2C12 (B), Sol8 (C), L6 (D), Y79 (E) and c4 (F) whole cell lysates.



Glucosidase II $\beta$  (H-4): sc-374457. Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of follicle cells, ovarian stroma cells and oocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing cytoplasmic staining of glandular cells (B).

## RESEARCH USE

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