



Glucosidase II β (h): 293 Lysate: sc-111253

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 II α and Glucosidase II β) which form a defined heterodimeric complex. Glucosidase II α is the catalytic core of the enzyme and can function independently of the β subunit. The sequence of Glucosidase II β 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 β is localized in the plasma membrane and is highly expressed in FGF-stimulated fibroblasts and epidermal carcinoma cells. Glucosidase II β 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 β retains the complete complex in the ER.

REFERENCES

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2. Saxena, S., Shailubhai, K., Dong-Yu, B. and Vijay, I.K. 1987. Purification and characterization of Glucosidase II involved in N-linked glycoprotein processing in bovine mammary gland. *Biochem. J.* 247: 563-570.
3. Trombetta, E.S., Simons, J.F. and Helenius, A. 1996. Endoplasmic reticulum Glucosidase II is composed of a catalytic subunit, conserved from yeast to mammals, and a tightly bound noncatalytic HDEL-containing subunit. *J. Biol. Chem.* 271: 27509-27516.
4. Trembl, K., Meimaroglou, D., Hentges, A. and Bause, E. 2000. The α - and β -subunits are required for expression of catalytic activity in the heterodimeric Glucosidase II complex from human liver. *Glycobiology* 10: 493-502.
5. Trombetta, E.S., Fleming, K.G. and Helenius, A. 2001. Quaternary and domain structure of glycoprotein processing Glucosidase II. *Biochemistry* 40: 10717-10722.

CHROMOSOMAL LOCATION

Genetic locus: PRKCSH (human) mapping to 19p13.2.

PRODUCT

Glucosidase II β (h): 293 Lysate represents a lysate of human Glucosidase II β transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Glucosidase II β (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Glucosidase II β antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

RESEARCH USE

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