SANTA CRUZ BIOTECHNOLOGY, INC.

β-glucosidase (N-17): sc-30844

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

β-glucosidase is a predominantly liver enzyme which efficiently hydrolyzes β-D-glucoside and β-D-galactoside. Defects in β-glucosidase cause Gaucher disease, an inherited condition distinguished by the accumulation of glucosylceramide within the cells of the reticuloendothelial system. β-glucosidase is used in enzyme replacement treatment aimed at treating Gaucher disease. The absorption of dietary flavonoid glycosides in humans involves a critical deglycosylation step that is mediated by epithelial β-glucosidases.

REFERENCES

1. Overkleeft, H.S., et al. 1998. Generation of specific deoxynojirimycin-type inhibitors of the non-lysosomal glucosylceramidase. J. Biol. Chem. 273: 26522-26527.
2. de Graaf, M., et al. 2001. Cloning and characterization of human liver cytosolic β-glycosidase. Biochem. J. 356: 907-910.

CHROMOSOMAL LOCATION

Genetic locus: GBA (human) mapping to 1q22; Gba (mouse) mapping to 3 F1.

SOURCE

β-glucosidase (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of β-glucosidase 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.

Blocking peptide available for competition studies, sc-30844 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β-glucosidase (N-17) is recommended for detection of β-glucosidase 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

β-glucosidase (N-17) is also recommended for detection of β-glucosidase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for β-glucosidase siRNA (h): sc-44904, β-glucosidase siRNA (m): sc-44905, β-glucosidase shRNA Plasmid (h): sc-44904-SH, β-glucosidase shRNA Plasmid (m): sc-44905-SH, β-glucosidase shRNA (h) Lentiviral Particles: sc-44904-V and β-glucosidase shRNA (m) Lentiviral Particles: sc-44905-V.

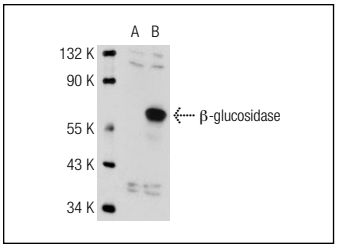
Molecular Weight of β-glucosidase: 57 kDa.

Positive Controls: β-glucosidase (h): 293T Lysate: sc-110483, MCF7 whole cell lysate: sc-2206 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



β-glucosidase (N-17): sc-30844. Western blot analysis of β-glucosidase expression in non-transfected: sc-117752 (**A**) and human β-glucosidase transfected: sc-110483 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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