



PNGase (N-15): sc-103128

BACKGROUND

PNGase, also known as NGLY1 (N-glycanase 1) or PNG1, is a 654 amino acid protein that localizes to the cytoplasm and contains one PAW domain and one PUB domain. Using Zinc as a cofactor, PNGase deglycosylates the denatured form of cytoplasmic N-linked glycoproteins, specifically cleaving the β -aspartyl-glucosamine residue in the target protein and assisting in proteasome-mediated degradation. PNGase is also capable of recognizing and deglycosylating misfolded proteins in the endoplasmic reticulum (ER), thereby playing a role in the elimination of misfolded glycoproteins. PNGase exists as four alternatively spliced isoforms and is functionally inhibited by Z-VAD-fmk, a caspase inhibitor that binds to PNGase and inhibits its enzymatic activity.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NGLY1 (human) mapping to 3p24.2; Ngly1 (mouse) mapping to 14 A2.

RESEARCH USE

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

SOURCE

PNGase (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PNGase of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103128 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PNGase (N-15) is recommended for detection of PNGase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with isoform PNGase4.

Suitable for use as control antibody for PNGase siRNA (h): sc-78460, PNGase siRNA (m): sc-152352, PNGase shRNA Plasmid (h): sc-78460-SH, PNGase shRNA Plasmid (m): sc-152352-SH, PNGase shRNA (h) Lentiviral Particles: sc-78460-V and PNGase shRNA (m) Lentiviral Particles: sc-152352-V.

Molecular Weight of PNGase: 74 kDa.

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) 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.

STORAGE

Store at 4° 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 or our catalog for detailed protocols and support products.