



Nth1 (yN-17): sc-22951

BACKGROUND

Trehalose is a key protein that serves two main purposes in *Saccharomyces cerevisiae*. Firstly, it plays a role as a storage carbohydrate. Secondly, it protects proteins and membranes against adverse conditions, such as heat. In recovering from heat stress, trehalose is rapidly degraded by trehalases. Neutral trehalase (Nth1), also known as α,α -trehalase, is one of the three trehalases that have been described to hydrolyze trehalose in yeast. Nth1, a cytosolic protein, remains inactive but increases in concentration as trehalose levels increase. When heat-induced, Nth1 is activated by Msn2, Msn4 and cAMP-dependent protein kinase (PKA) at an optimum pH of 7.0. Nth1 is a 751 amino acid protein which forms a homodimer.

REFERENCES

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SOURCE

Nth1 (yN-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Nth1 of *Saccharomyces cerevisiae* origin.

RESEARCH USE

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

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-22951 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Nth1 (yN-17) is recommended for detection of Nth1 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Nth1: 86 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.

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.