SANTA CRUZ BIOTECHNOLOGY, INC.

Rpn11 (yP-14): sc-25918

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The 26S proteasome is a functional complex made up of two subunits, the 20S proteolytic subunit and the 19S regulatory particle which recognizes and unfolds ubiquitinated proteins. Rpn11 is a component of the lid subunit of the 19S regulatory particle in *Saccharomyces cerevisiae* and contains a jab/MPN domain associated metalloisopeptidase (JAMM) motif. The JAMM motif of Rpn11 detaches the ubiquitin targeting signal from marked proteins. This step is essential for substrate proteolysis. Rpn11 mutations cause cell cycle and mitochondrial defects, temperature sensitivity and sensitivity to DNA damaging reagents. Rpn11 is 68.4% homologous with the human proteasome subunit Poh1; the N-terminal region shares the most identity. Rpn11 localizes to the cytoplasm in a punctate manner.

REFERENCES

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2. Maytal-Kivity, V., Reis, N., Hofmann, K., and Glickman, M.H. 2002. MPN+, a putative catalytic motif found in a subset of MPN domain proteins from eukaryotes and prokaryotes, is critical for Rpn11 function. BMC Biochem. 3: 28.
3. Verma, R., Aravind, L., Oania, R., McDonald, W.H., Yates, J.R. III, Koonin, E.V., and Deshaies, R.J. 2002. Role of Rpn11 metalloprotease in deubiquitination and degradation by the 26S proteasome. Science 298: 611-615.
4. Cope, G.A., Suh, G.S., Aravind, L., Schwarz, S.E., Zipursky, S.L., Koonin, E.V., and Deshaies, R.J. 2002. Role of predicted metalloprotease motif of Jab1/Csn5 in cleavage of NEDD8 from Cul1. Science 298: 608-611.
5. Yao, T. and Cohen, R.E. 2002. A cryptic protease couples deubiquitination and degradation by the proteasome. Nature 419: 403-407.

SOURCE

Rpn11 (yP-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rpn11 of *Saccharomyces cerevisiae* 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-25918 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Rpn11 (yP-14) is recommended for detection of Rpn11 of *Saccaromyces 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).

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.

RESEARCH USE

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