SANTA CRUZ BIOTECHNOLOGY, INC.

Rnq1 (yG-20): sc-26861

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The Power to Question

BACKGROUND

Several protein-based genetic elements (prions), which are self-propagating protein conformations, have been identified in the budding yeast *S. cerevisiae* including Rnq1 and Sup35. Rnq1 (for rich in asparagine and glutamine), exists in distinct, heritable physical states, soluble and insoluble. The insoluble state is dominant and transmitted between cells through the cytoplasm. Huntington toxicity in yeast model depends on polyglutamine aggregation mediated by Rnq1. Sis1, a functionally distinct heat shock protein Hsp40 molecular chaperone of the yeast cytosol, is necessary for propagation of Rnq1. The yeast [PSI$^+$], [URE3], and [PIN$^+$] genetic elements are prion forms of Sup35, Ure2, and Rnq1, respectively. The yeast non-Mendelian trait [PIN$^+$] is required for the de novo appearance of the [PSI$^+$] prion. The presence of prions formed by Rnq1 or Ure2 is sufficient to make cells [PIN$^+$] (6). Thus, [PIN$^+$] can be caused by more than one prion.

REFERENCES

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2. Derkatch, I.L., Bradley, M.E., Hong, J.Y., and Liebman, S.W. 2001. Prions affect the appearance of other prions: the story of [PIN$^+$]. Cell. 106: 171-182.
3. Bradley, M.E., Edskes, H.K., Hong, J.Y., Wickner, R.B., and Liebman, S.W. 2002. Interactions among prions and prion "strains" in yeast. Proc Natl Acad Sci USA. 99 Suppl 4: 16392-16399.
4. Meriin, A.B., Zhang, X., He, X., Newnam, G.P., Chernoff, Y.O., and Sherman, M.Y. 2002. Huntington toxicity in yeast model depends on polyglutamine aggregation mediated by a prion-like protein Rnq1. J Cell Biol. 157: 997-1004.
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6. Lopez, N., Aron, R., and Craig, E.A. 2003. Specificity of class II Hsp40 Sis1 in maintenance of yeast prion [RNQ$^+$]. Mol Biol Cell. 14: 1172-1181.

SOURCE

Rnq1 (yG-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Rnq1 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-26861 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.

APPLICATIONS

Rnq1 (yG-20) is recommended for detection of Rnq1 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.

PROTOCOLS

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