



## Rna14 (yK-16): sc-26252

### BACKGROUND

The 3' ends of most eukaryotic pre-messenger RNAs undergo endonucleolytic cleavage and polyadenylation in the nucleus. In *Saccharomyces cerevisiae*, this process requires four factors, cleavage factor I (CF I), CF II, polyadenylation factor I (PF I), and poly(A) polymerase (PAP). All four factors participate in polyadenylation, whereas only CF I and CF II are required for cleavage. The CF I complex consists of five subunits, Rna14, Rna15, Pcf11, Clp1, and Hrp1. The yeast RNA14 gene maps to chromosome H, and transcribes three mRNAs, one major and two minor. The major Rna14 transcript translates to a protein that when mutated results in mRNAs having shorter poly(A) tails and reduced half-life. All Rna14 mutants can be classified into two groups, the poly(A)-negative class, which contain mutants deficient in mRNA 3'-end processing, and the poly(A)-positive class, which are not impaired in mRNA processing. Rna14 localizes to both the nucleus and mitochondria, which suggests that the poly(A)-positive class of Rna14 mutants relate to an unknown function of Rna14 in the mitochondria (7-8).

### REFERENCES

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4. Minvielle-Sebastia, L., Winsor, B., Bonneaud, N. and Lacroute, F. 1991. Mutations in the yeast RNA14 and RNA15 genes result in an abnormal mRNA decay rate; sequence analysis reveals an RNA-binding domain in the RNA15 protein. *Mol. Cell. Biol.* 11: 3075-3087.
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6. Mandart, E., Dufour, M.E. and Lacroute, F. 1994. Inactivation of SSM4, a new *Saccharomyces cerevisiae* gene, suppresses mRNA instability due to rna14 mutations. *Mol. Gen. Genet.* 245: 323-333.
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### STORAGE

Store at 4°C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### SOURCE

Rna14 (yK-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Rna14 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-26252 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Rna14 (yK-16) is recommended for detection of Rna14 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 Rna14: 80 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.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.