SANTA CRUZ BIOTECHNOLOGY, INC.

Hpr1 (yK-20): sc-26808

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The Power to Question

BACKGROUND

Nuclear mRNA metabolism relies on the interplay between transcription, processing, and nuclear export. RNA polymerase II transcripts experience major rearrangements within the nucleus, which include alterations in the structure of the mRNA precursors as well as the addition and perhaps even removal of proteins prior to transport across the nuclear membrane. Such mRNP-remodeling steps are thought to require the activity of RNA helicases/ATPases. Hpr1 is a protein involved in transcription elongation whose deletion leads to poly(A)(+) RNA accumulation in the nucleus. Hpr1 is required for the efficient recruitment of Sub2 and Yra1 when they associate with active genes during transcription elongation. Stable mRNP formation and export require cotranscriptional recruitment of the mRNA export factors Yra1 and Sub2 by Hpr1. Although the exact biochemical function of Hpr1p remains unclear, it has a functional role in RNA polymerase II transcription. Hpr1 is a component of at least two unique protein complexes, each with both biochemical and genetic associations with RNA polymerase II transcription. One complex containing Hpr1, Paf1, Ccr4, and Cdc73 appears to be a subunit of an alternative RNA polymerase II holoenzyme with distinct regulatory functions and plays a role in protein kinase C signaling. The other biochemically defined complex comprises of Hpr1, Tho2, Mft1, and Thp2 and functions in transcriptional elongation. Sub2 and Yra1 interact genetically with all four components of the THO complex (Tho2, Hpr1, Mft1 and Thp2).

REFERENCES

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SOURCE

Hpr1 (yK-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Hpr1 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-26808 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Hpr1 (yK-20) is recommended for detection of Hpr1 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).

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.

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.