SANTA CRUZ BIOTECHNOLOGY, INC.

Cup1 (yP-11): sc-26157

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The Power to Question

BACKGROUND

The activity of a diverse subset of enzymes relies on the essential nutrient copper. Copper uptake requires tight regulation to ensure that sufficient copper is present in the cell to drive vital cellular processes, while avoiding the accumulation of copper to toxic levels. In *Saccharomyces cerevisiae*, copper regulation involves several proteins. Fre1, a surface reductase, reduces and mobilizes copper outside the cell, while the Ctr1 and Ctr3 proteins function as copper transport proteins within the plasma membrane. Regulation of these proteins occurs at the transcriptional level. Cup1, a metallothionein-like protein, binds copper and protects *S. cerevisiae* from copper poisoning. The gene CUP1 encodes a seven kDa protein (Cup1). Ace1 activates CUP1 transcription in response to copper ions. Heat shock transcription factor also activates CUP1.

REFERENCES

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SOURCE

Cup1 (yP-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cup1 of *Saccharomyces cerevisiae* origin.

STORAGE

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

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-26157 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Cup1 (yP-11) is recommended for detection of Cup1 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.

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.