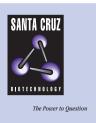
## SANTA CRUZ BIOTECHNOLOGY, INC.

# Orc1 (yC-20): sc-6675



## BACKGROUND

Orc1 and Orc2 (also designated RRR1 or SIR5) are two of the six subunits that compase the yeast origin of replication complex (ORC). This complex binds to autonomously replicating sequences (ARS) and serves as an initiator protein for DNA replication. The minichromosome maintenance (Mcm) proteins also play an essential role in regulating DNA replication by binding to chromatin and activating the ORC-ARS complex. Cdc6, involved in limiting DNA replication to once per cell cycle, binds to the ORC and is essential for the assembly of the Mcm proteins. The transcription factor Abf1 (also designated Obf1 or Baf1) also binds to the ARS and plays a role in gene silencing as well as in DNA replication.

## REFERENCES

- Foss, M., McNally, F.J., Laurenson, P., and Rine, J. 1993. Origin recognition complex (ORC) in transcriptional silencing and DNA replication in *S. cerevisiae*. Science 262: 1838-1844.
- Bell, S.P., Kobayashi, R., and Stillman, B. 1993. Yeast origin recognition complex functions in transcription silencing and DNA replication. Science 262: 1844-1849.
- Bell, S.P., Mitchell, J., Leber, J., Kobayashi, R., and Stillman, B. 1995. The multidomain structure of Orc1p reveals similarity to regulators of DNA replication and transcriptional silencing. Cell 83: 563-568.
- McBroom, L.D.B. and Sadowski, P.D. 1995. Functional analysis of the ABF1-binding sites within the Ya regions of the MATa and HMRa loci of Saccharomyces cerevisiae. Curr. Genet. 28: 1-11.
- Cocker, J.H., Piatti, S., Santocanale, C., Nasmyth, K., and Diffley, J.F.X. 1996. An essential role for the Cdc6 protein in forming the pre-replicative complexes of budding yeast. Nature 379: 180-182.
- Donovan, S., Harwood, J., Drury, L.S., and Diffley, J.F.X. 1997. Cdc6pdependent loading of Mcm proteins onto pre-replicative chromatin in budding yeast. Proc. Natl. Acad. Sci. USA 94: 5611-5616.

## SOURCE

Orc1 (yC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Orc1 of *Saccharomyces cerevisiae* origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6675 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 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.

### **APPLICATIONS**

Orc1 (yC-20) is recommended for detection of Orc1 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.

#### PROTOCOLS

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