SANTA CRUZ BIOTECHNOLOGY, INC.

Orc2 (y-130): sc-28554

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Orc1 and Orc2 (also designated RRR1 or SIR5) are two of the six subunits that compose 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 des-ignated Obf1 or Baf1) also binds to the ARS and plays a role in gene silencing as well as in DNA replication.

REFERENCES

1. Bell, S.P., Kobayashi, R. and Stillman, B. 1993. Yeast origin recognition complex functions in transcription silencing and DNA replication. Science 262: 1844-1849.
2. 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.
3. 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.
4. 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.
5. 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.
6. Donovan, S., Harwood, J., Drury, L.S. and Diffley, J.F.X. 1997. Cdc6p-dependent loading of MCM proteins onto pre-replicative chromatin in budding yeast. Proc. Natl. Acad. Sci. USA 94: 5611-5616.

SOURCE

Orc2 (y-130) is a rabbit polyclonal antibody raised against amino acids 491-620 mapping at the C-terminus of Orc2 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

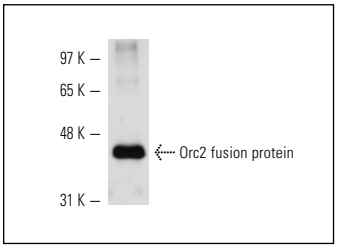
Orc2 (y-130) is recommended for detection of Orc2 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Orc2: 57 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Orc2 (y-130): sc-28554. Western blot analysis of yeast recombinant Orc2 fusion protein.

RESEARCH USE

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