SANTA CRUZ BIOTECHNOLOGY, INC.

Mcm2 (C-3): sc-515723

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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 designated Obf1 or Baf1) also binds to the ARS, and plays a role in gene silencing as well as in DNA replication.

REFERENCES

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3. Yan, H., Merchant, A.M. and Tye, B.K. 1993. Cell cycle-regulated nuclear localization of Mcm2 and Mcm3, which are required for the initiation of DNA synthesis at chromosomal replication origins in yeast. Genes Dev. 7: 2149-2160.
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5. Dalton, S. and Whitbread, L. 1995. Cell cycle-regulated nuclear import and export of Cdc47, a protein essential for initiation of DNA replication in budding yeast. Proc. Natl. Acad. Sci. USA 92: 2514-2518.
6. 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.
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8. 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.

SOURCE

Mcm2 (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 11-34 near the N-terminus of Mcm2 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Mcm2 (C-3) is available conjugated to agarose (sc-515723 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515723 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515723 PE), fluorescein (sc-515723 FITC), Alexa Fluor® 488 (sc-515723 AF488), Alexa Fluor® 546 (sc-515723 AF546), Alexa Fluor® 594 (sc-515723 AF594) or Alexa Fluor® 647 (sc-515723 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515723 AF680) or Alexa Fluor® 790 (sc-515723 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Mcm2 (C-3) is recommended for detection of Mcm2 of *S. cerevisiae* origin by Western Blotting (starting dilution 1:100, 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).

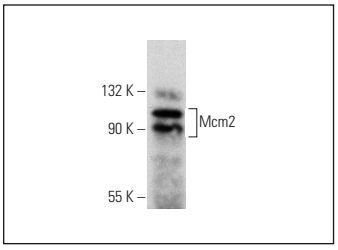
Molecular Weight of Mcm2: 130 kDa.

Positive Controls: EGY48 whole cell lysate: sc-364775.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Mcm2 (C-3): sc-515723. Western blot analysis of Mcm2 expression in EGY48 whole cell lysate.

RESEARCH USE

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