BIO-RAD

DNA Size Markers–Yeast Chromosomal

Catalog Number 170-3605

Contents *Saccharomyces cerevisiae* chromosomal DNA in 1.0% Bio-Rad's low-melt agarose. *S. cerevisiae* genomic DNA consists of 15 chromosomes which may be used as size markers for pulsed-field gel electrophoresis.

Quantity Five inserts at a concentration of approximately 7 x 10^8 cells/ml (1.75 x 10^8 cells/insert).

Storage Stable for 1 year at 4 °C. Store at 4 °C upon receipt. Use sterile instruments when removing samples from the tube. Introduction of nucleases will shorten the shelf life. The storage buffer is 10 mM Tris, pH 9.0, 100 mM EDTA.

Sizes Approximate DNA size: 225, 285, 365, 450, 565, 610, 680, 750, 785, 825, 945, 1,020, 1,125, 1,600, and 2,200 kilobase pairs.[1] See Figure 1. DNA size determination was estimated by using lambda concatemers run on the same gel.

Use Yeast chromosomal DNA size markers are used to estimate molecular weights of DNA samples separated on agarose gels. Remove a sample insert from the packaging tube and place the insert on a smooth clean surface. Cut it to fit the sample wells using a razor blade or spatula. Each sample insert can be cut into 6–8 pieces that will fit into a 10 mm well. Place the cut piece of agarose insert into the sample well using a spatula, and gently press them to the bottom front of the well. Do not overstuff the wells with sample. Fill each sample well with 1.0% Bio-Rad's low-melt agarose to keep the sample in place and to remove the air space. Allow the agarose to harden.

References

1. Mortimer, R. and Schild, D., *Microbiol Rev.*, **49,** 181 (1985).

2. Traver, C. and Davis, R., California Institute of Technology. U.S. Congress, Office of Technology Assessment, Mapping our genes the genomic projects: how big, how fast?, OTA-BA-3, Washington, D.C. U.S. Government Printing Office (1988).

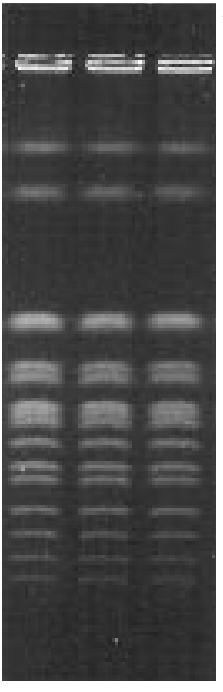

Fig. 1. Yeast chromosomes, *Saccharomyces cerevisiae.* Strain YNN295. Chromosomes were separated on a CHEF Mapper® XA system in a 1% Pulsed Field Certified Agarose gel in 0.5x TBE at 14 °C. The run time was 24 hours at 6V/cm (200 V) with a 60–120 second switch time ramp at an included angle of 120°.