



## DNA Size Markers– *S. pombe* Chromosomal DNA

### Catalog Number 170-3633

**Contents** *Schizosaccharomyces pombe* chromosomal DNA in 1.0% Bio-Rad's Low Melt Preparative Grade Agarose. *S. pombe* genomic DNA consists of 3 chromosomes which may be used as size markers for CHEF, OFAGE, TAFE, RFGE, and PFG gels.

**Quantity** Five agarose inserts at a concentration of approximately  $9 \times 10^8$  cells/ml ( $2.25 \times 10^8$  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 shelf life. The storage buffer is 10 mM Tris, pH 9.0, 100 mM EDTA.

**Sizes** Approximate DNA sizes: 3.5, 4.6, and 5.7 megabases.<sup>1,2</sup> See Figure 1.

**Use** *S. pombe* 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 it 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 fit into a 10 mm well. Place the cut piece of agarose insert into the sample well using a spatula, and gently press it to the bottom of the well. For best results, do not let the block exceed 80% of the height of the well. Fill each sample well with 0.8% Low Melt Preparative Grade Agarose to keep the sample in place and to remove air space. Allow the agarose to harden.

## References

1. Vollrath, D. and Davis, R., *Nucl. Acids Res.*, **15**, 7865-7876 (1987).
2. Steele, P.E., Carle, G. F., Kobayashi, G. S. and Medoff, G., *Molec. and Cell Biol.*, **9**, 983-987 (1989).

Size (Mb)	Chromosome Number
5.7	I
4.6	II
3.5	III

**Fig. 1. *Schizosaccharomyces pombe*, strain 972h-.** Chromosomes were separated on a CHEF Mapper<sup>®</sup> XA system in a 0.8% Chromosomal Grade Agarose gel in 1.0x TAE at 14 °C. Run time was 48 hours at 2 V/cm (70 V) with a 20–30 minute switch time ramp at an included angle of 106°. *S. cerevisiae* chromosomes are run in the right lane for comparison.