

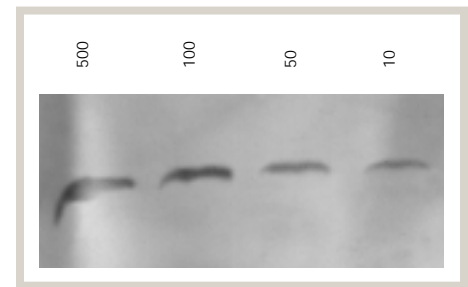
**Figure 4.** Double-stranded RNA is purified effectively with the MasterPure™ RNA Purification Kit. Lane M, kb ladder; Lane 1, dsRNA transcript before purification; Lane 2, dsRNA transcript purified with the MasterPure Purification Kit.

A double-stranded RNA transcript, produced by annealing two single-stranded AmpliScribe control transcripts together, was treated with RNase-Free DNase I and purified using the same protocol described above. The purified double-stranded RNA shows no remaining DNA template and resulted in only a slight loss of RNA during purification (Figure 4). Alternatively, to improve the RNA recovery, single-stranded RNA transcripts could be purified and subsequently annealed after MasterPure RNA Purification. The MasterPure purified biotin-labeled DuraScribe™ transcript detected various amounts of DNA template blotted to a membrane when used as a probe (Figure 5).

### Conclusion

This simple and quick, solution-based clean-up method was designed to maximize the recovery of RNA from even the smallest amount of starting material. The easily scaleable, MasterPure RNA Purification Kit works effectively to remove proteins, including transcription

enzymes and nucleases, as well as DNA templates, and transcription buffer components from single-stranded and double-stranded RNA transcripts.



**Figure 5.** Detection of decreasing amounts of DNA template using a MasterPure™ purified biotin-labeled DuraScribe™ transcript as probe. Lane 1, 500 pg; Lane 2, 100 pg; Lane 3, 50 pg; Lane 4: 10 pg of DNA template.

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### MasterPure™ RNA Purification Kit

MCR85102 100 Purifications

## Obtain the Highest DNA Yields from Yeast with the MasterPure™ Yeast DNA Purification Kit

The MasterPure™ Yeast DNA Purification Kit is a simple and nonenzymatic approach to yeast genomic DNA purification. High quality yeast DNA can be obtained in less than 40 minutes without columns, resins or organic extractions. Recover DNA from a wide variety of yeast species including *Candida*, *Saccharomyces*, *Pichia*, and *Schizosaccharomyces*, and filamentous fungi such as *Aspergillus* and

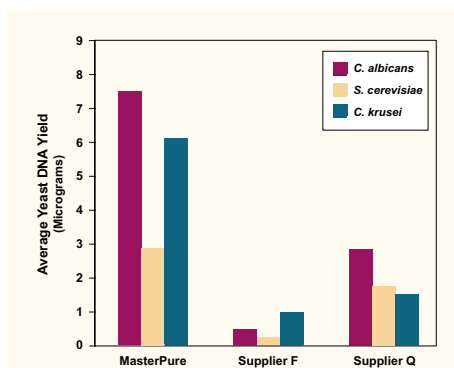
*Penicillium*. The MasterPure Kit produces high-quality DNA that can be used directly for many applications including PCR amplification, restriction endonuclease digestion, Southern blotting, and genomic library preparation.

### Higher yield than the competition

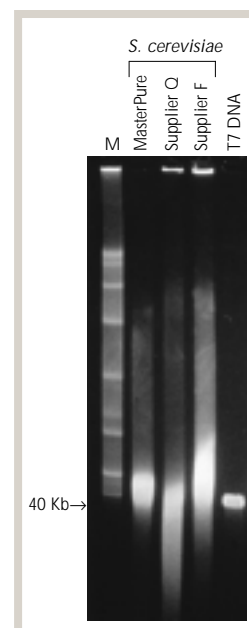
Using a simple, short protocol, DNA yields obtained with the MasterPure Kit were consistently above those of two competing kits (Figure 1). For example, the kit from supplier F averaged 0.25 µg of DNA from 1.5 ml of *S. cerevisiae*, whereas the MasterPure Kit produced an average of 2.94 µg, almost twelve times as much. The supplier Q kit produced 1.8 µg of *S. cerevisiae* DNA from the same culture volume.

### High molecular weight DNA

The MasterPure Kit yields high molecular weight yeast DNA. As determined by pulsed field gel electrophoresis, the size of the *S. cerevisiae* DNA isolated with the MasterPure Yeast DNA Purification Kit is approximately 40-50 kb, while DNA of the same yeast species purified with the kit from supplier Q was mostly degraded to fragments smaller than 40 kb (Figure 2). A similar size discrepancy was observed for *C. albicans* DNA (data not shown).



**Figure 1.** The MasterPure™ Yeast DNA Purification Kit gives higher yields of DNA than other kits. DNA yields were from 1.5 ml cultures and quantitated by fluorometry with Hoescht 33258 dye. The data represent the average of duplicate extractions from either one (*C. krusei*) or two (*S. cerevisiae* and *C. albicans*) experiments.



**Figure 2.** Yeast DNA purified using the MasterPure™ Yeast DNA Purification Kit has a higher molecular weight than DNA purified using other kits. 500 ng of purified yeast DNA was analyzed by pulsed field gel electrophoresis on a 1% agarose gel. Lane M, lambda DNA ladder.

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### MasterPure™ Yeast DNA Purification Kit

MPY80010 10 Purifications  
MPY80200 200 Purifications

#### Contents:

Yeast Cell Lysis Solution, MPC Protein Precipitation Reagent, TE Buffer, and RNase A.