and 530 nm excitation and emission wavelengths using a Bio-Rad iCycler iQ® Real-Time PCR Detection System. For high throughput screening, fluorescence can be measured using 96-well plates and a microplate fluorimeter. As shown in FIG 2, strong inhibition of EcRNAP activity by rifampicin, a known inhibitor of bacterial RNA polymerase, and partial inhibition by Tagetin can be detected, while α-amanitin, an inhibitor of eukaryotic RNA polymerase II, has no effect.

**Conclusions**

The Kool™ NC-45™ Universal RNA Polymerase Template and the Kool™ NC-45™ RNAP Activity & Inhibitor Screening Kit enable rapid and sensitive real-time screening of inhibitors of *E. coli* RNA polymerase.

**References**


* Use of Kool™ Templates in Rolling Circle Transcription reactions is covered by U.S. Patent Nos. 5,714,320; 6,077,668; 6,096,880; 6,368,802; and other patents pending in the U.S. and foreign countries, licensed or assigned to EPICENTRE Biotechnologies. These products are accompanied by a limited non-exclusive license for the purchaser to use the purchased product(s) solely for life science research. Contact EPICENTRE concerning licenses for other uses.

** Obtain Higher Molecular Weight Soil DNA without Bead-Beating **

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The SoilMaster™ Kit is ideal for extracting high quality PCR-ready soil DNA without bead-beating. DNA fragment size, yield, and quality, are important considerations in research. Consequently, when working with soil DNA, it is essential to choose an extraction procedure that does not include bead-beating, which can shear DNA into smaller fragments. EPICENTRE Biotechnologies’ SoilMaster DNA Extraction Kit is ideal for extracting high quality PCR-ready soil DNA without bead-beating.

FIG 1 shows the effect of bead-beating on soil DNA fragment length. Lanes 2 and 3 were loaded with DNA extracted from an equivalent amount of the same garden soil. In lane 3, the soil DNA was extracted using another vendor's kit (vendor M), which includes bead-beating. As can be seen, the soil DNA fragment size in lane 3 has been reduced significantly. In contrast, the DNA extracted using the SoilMaster DNA Extraction Kit in lane 2 is much larger and more typical of the size used to make fosmid libraries (additional field inversion gel electrophoresis data not shown). Fosmid libraries are used for soil metagenomics work—the study of genomes recovered from environmental samples as opposed to those from pure cultures. Furthermore, the results show that the SoilMaster DNA Extraction Kit provides a greater yield of DNA than the kit from vendor M. High yield is important for obtaining representative DNAs from a mixed soil microbial population.