

Size Your BAC Clones in 4 Hours without Growing Cultures or Performing Restriction Digests

Until now sizing BAC clones and assessing the quality of a BAC library was a time-consuming and labor-intensive process requiring growth of overnight cultures, isolation of DNA, digestion with restriction enzymes and Pulse Field Gel Electrophoresis (PFGE). EPICENTRE's Colony Fast-Screen™ Kit and new BAC-Tracker™ Supercoiled DNA Ladder eliminate these steps and reduce the time required to size BAC clones from days to 4 hours.

Benefits of the Colony Fast-Screen™ Kit

- **Fast.** Screen BAC clones in 4 hours. Screen smaller clones in as little as 1 hour.
- **Efficient.** No need to grow cultures or perform restriction digests.
- **Amenable** to both high throughput and routine cloning applications.

The Colony Fast-Screen Kit contains the EpiLyse™ Solution and EpiBlue™ Solution. The EpiLyse Solution lyses the cells releasing the supercoiled BAC DNA as well as genomic DNA fragments. The EpiBlue™ Solution is added in preparation for loading the gel. Standard agarose gels can be used. Load 10 µl of the BAC-Tracker™ Supercoiled DNA Ladder into lanes adjacent to the BACs and run the gel. Following electrophoresis, stain with SYBR® Gold (or other highly sensitive stain) and size the BAC clones (Figure 2). Total processing time, including running and staining an agarose gel, is about 4 hours.

The BAC-Tracker™ Supercoiled DNA Ladder (Figure 3) is the first commercially available size marker that is suitable for estimating the size of large supercoiled

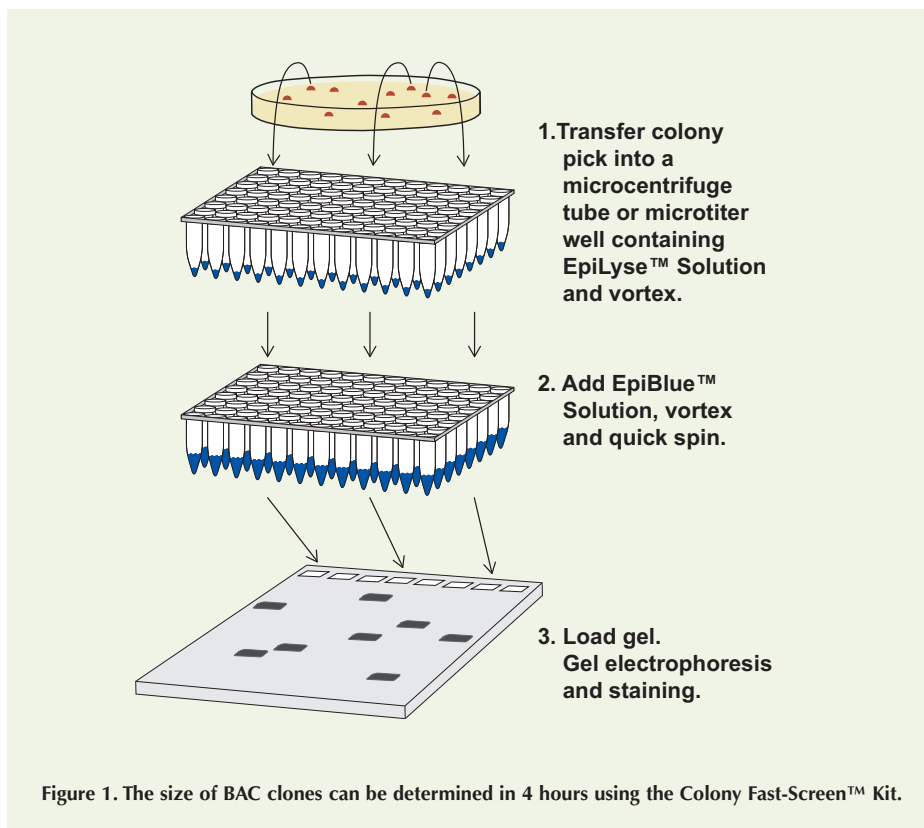


Figure 1. The size of BAC clones can be determined in 4 hours using the Colony Fast-Screen™ Kit.

DNAs such as BAC clones. The Ladder contains supercoiled DNAs of 38 Kb to 120 Kb in a ready-to-load solution. The BAC-Tracker Ladder has been formulated so that each band gives approximately equal staining intensity.

The Colony Fast-Screen Kit and the BAC-Tracker Supercoiled DNA Ladder are also supplied in EPICENTRE's new Copy-Control™ BAC Cloning Kits (see pages 9 – 11 and the center insert).

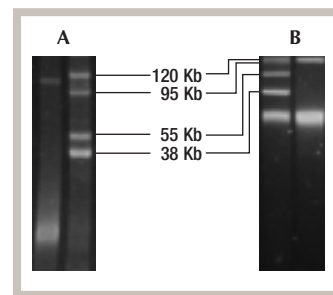


Figure 3. A purified 115-Kb BAC clone sized using the BAC-Tracker™ Supercoiled DNA Ladder by PFGE (Panel A) and by 0.8% agarose minigel (Panel B). Gels were stained using SYBR® Gold.

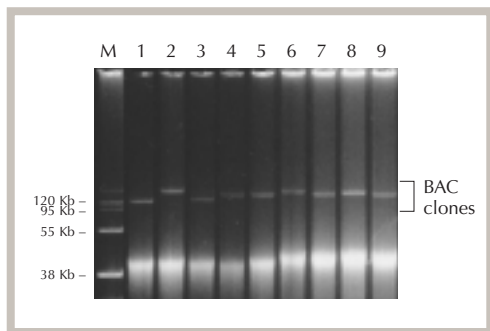


Figure 2. The size of 9 randomly picked BAC clones was determined using the Colony Fast-Screen™ Kit and the BAC-Tracker™ Supercoiled DNA Ladder as size markers.

The BAC clones were processed using the EpiLyse™ Solution and the EpiBlue™ Solution as described in the Colony Fast-Screen Kit literature. Aliquots of the processed clones were loaded into the wells of a 0.8% agarose gel. Ten microliters of the BAC-Tracker Supercoiled DNA Ladder was loaded and electrophoresis was performed for 3 hours (4.5 V/cm) at 4°C. The gel was stained with SYBR® Gold to visualize the single-copy BAC DNAs.

www.epicentre.com/fastscreen.asp
www.epicentre.com/bactracker.asp

Colony Fast-Screen™ Kit

FS08250 250 Screenings

Contents:

EpiBlue™ Solution and EpiLyse™ Solution.

BAC-Tracker™ Supercoiled DNA Ladder

BT010950 50 Gel Lanes

Contents:

Supercoiled DNAs of 38 Kb, 55 Kb, 95 Kb and 120 Kb in a ready-to-load solution.