



# Now, There Are Two Ways to Rapidly Screen Your Clones without Cultures, DNA Purifications, or Restriction Digests

EPICENTRE's Colony Fast-Screen™ Kit (Size Screen) and new Colony Fast-Screen™ Kit (PCR Screen) provide two rapid, sensitive, and easy methods for screening clones and libraries without the need to grow cultures, isolate DNA, or perform restriction endonuclease digestions.

## 1. Colony Fast-Screen™ Kit (Size Screen)

Rapidly screen the size of cloned inserts

The Colony Fast-Screen™ Kit (Size Screen), EPICENTRE's original Colony Fast-Screen™ Kit, facilitates screening the size of cloned inserts (Figure 1A). The size of most inserts can be determined in 1 hour or less (Figure 2) and the size of Bacterial Artificial Chromosome (BAC) clones can be estimated in as little as 4 hours.

### Benefits

- Rapid—determine the size of PCR, cDNA, and other cloned DNAs in 1 hour and of BAC clones in as little as 4 hours without the need to grow cultures, isolate DNA, or perform restriction digests.
- Sensitive—the size of single-copy BAC clones is readily estimated.
- High-throughput capability—the kit is amenable to both high-throughput and routine cloning applications.
- Flexible—can be used with all standard *E. coli* host strains and any plasmid vector.

Figure 1. The Colony Fast-Screen™ processes are rapid and simple

## 2. Colony Fast-Screen™ Kit (PCR Screen)

Rapidly prepare clones for screening by PCR

The new Colony Fast-Screen™ Kit (PCR Screen) provides a rapid method for preparing clones—in about 10 minutes—for screening by PCR without the need to grow cultures or isolate DNA (Figure 1B). The kit can be used with all standard *E. coli* hosts and all plasmid vectors, including single-copy vectors. Thermostable polymerase and PCR primers are not provided.

### Benefits

- Rapid—prepare PCR-ready DNA in <10 minutes without the need to grow cultures or purify DNA.
- Sensitive—enables screening of single-copy and high-copy clones by PCR amplifications up to 10 kb.
- High-throughput capability—the kit is amenable to both high-throughput and routine cloning applications.
- Reproducible PCR—the PCR-Lyse™ Solution provided does not interfere with pre-established PCR reaction conditions.
- Flexible—can be used with any plasmid vector and all standard *E. coli* host strains.

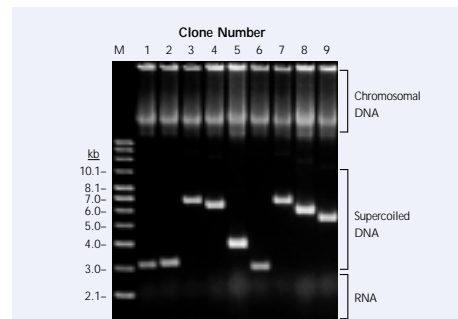
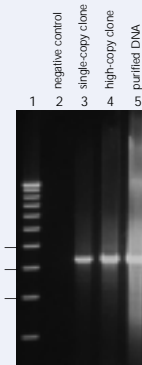


Figure 2. Agarose gel size analysis of plasmid clones using the Colony Fast-Screen Kit (Size Screen). Very small portions of nine randomly chosen clones were picked from an overnight plate, processed using the Colony Fast-Screen Kit (Size Screen), and the size of the cloned insert of each determined by agarose gel electrophoresis. Total time including running the gel was 45 minutes. M, Supercoiled DNA Ladder.

## Figure 3. The Colony Fast-Screen™ Kit (PCR Screen) enables screening of both high-copy and single-copy clones by PCR without the need for cultures and DNA purifications.

Colonies containing a 5-kb lambda fragment cloned into the CopyControl™ pCC1™ vector and grown on plates at either single-copy or high-copy number were picked and processed using the Colony Fast-Screen Kit (PCR Screen) as described in Figure 1. PCR was performed using primers homologous to the ends of the cloning vector. Lane 1, DNA size marker; Lane 2, *E. coli* DNA (negative control); Lane 3, single-copy clone; Lane 4, high-copy clone; Lane 5, PCR of 1 ng of purified DNA.

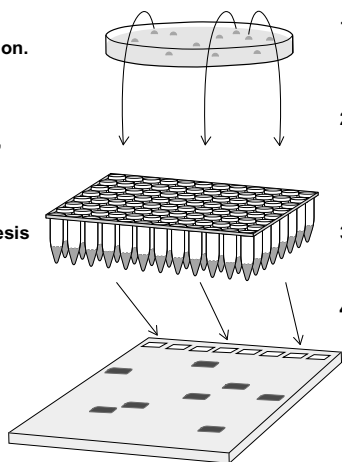


### A. Colony Fast-Screen™ Kit (Size Screen)

1. Pick colony into EpiBlue™ Solution.
2. Add EpiLyse™ Solution, vortex, and quick spin.
3. Gel electrophoresis and staining.

### B. Colony Fast-Screen™ Kit (PCR Screen)

1. Pick colony into tube or microtiter well.
2. Add PCR-Lyse™ Solution, vortex, and heat 5'.
3. Perform PCR.
4. Gel electrophoresis and staining.



[www.epicentre.com/fastscreen.asp](http://www.epicentre.com/fastscreen.asp)

### Colony Fast-Screen™ Kit (Size Screen)

Rapidly screen the size of cloned inserts.  
FS08250 1 Kit  
Sufficient reagents to screen 250 colonies.

#### Contents:

EpiLyse™ Solution  
EpiBlue™ Solution

### Colony Fast-Screen™ Kit (PCR Screen)

Rapidly prepare clones for screening by PCR.  
FS0322H 1 Kit  
Sufficient reagents to screen 200 colonies.  
Thermostable Polymerase and PCR primers are not included.

#### Contents:

PCR-Lyse™ Solution  
Gel Loading Solution