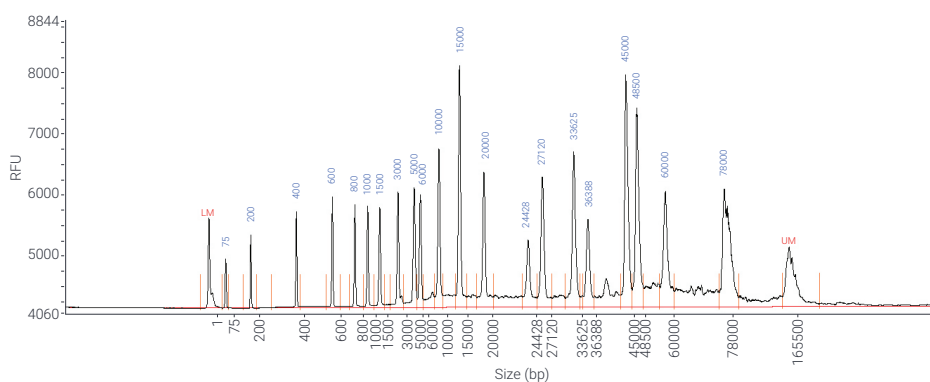


# Agilent 165 kb BAC Kit

## Agilent Femto Pulse System

Bacterial artificial chromosome (BAC) libraries are a stable and versatile tool used for hosting entire gene(s) and their associated regulatory elements. Verification of gene insertion into a BAC is an essential quality control checkpoint and is performed by analyzing BAC size after gene insertion. The Agilent Femto Pulse system, along with the 165 kb BAC kit, provides unparalleled fragment resolution, sensitivity, and accuracy for sizing high molecular weight DNA fragments such as BAC libraries. The Femto Pulse enables detection of fragments ranging from 75 to 165,000 bp in size, with single-fragment detection sensitivity down to 1.6 pg/ $\mu$ L and up to 50 pg/ $\mu$ L.



**Figure 1.** Fragment separation and detection on the Agilent Femto Pulse system. The Agilent FP 165 kb BAC Ladder was separated using the Agilent 165 kb BAC kit and clearly demonstrates a detection range from 75 bp up to 165,000 bp in size. (LM = lower marker, UM = upper marker).

## Features and Benefits

### Broad DNA concentration range

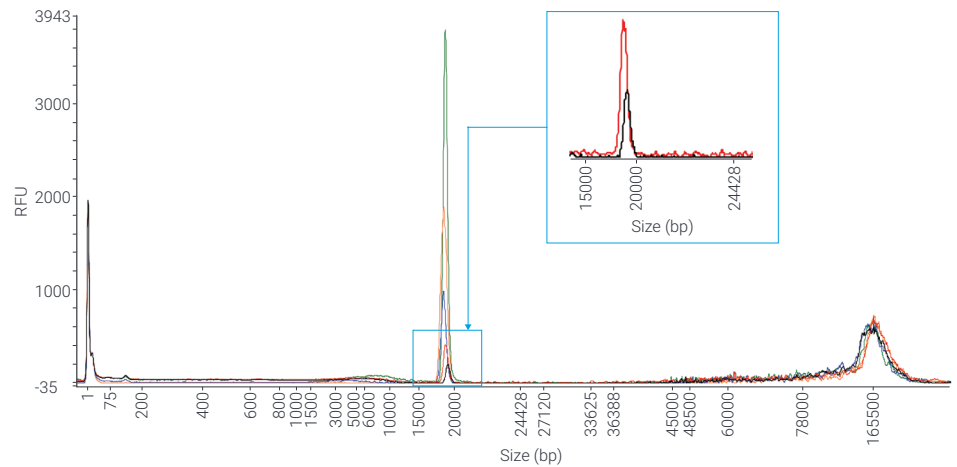
Detect BAC DNA fragments from precious and limited sample inputs ranging from 1.6 pg/μL to 50 pg/μL

### Accurate sizing

Extended ladder fragments enable the accurate and precise sizing of BAC DNA fragments from 75 to 165,000 bp

### Fast run time

Separate 12 samples by pulse-field capillary electrophoresis (PFGE) in just 170 minutes, compared to 18 hours for a traditional PFGE run



**Figure 2.** A 20,000 bp fragment analyzed using the 165 kb BAC kit. The fragment was detected across all five serial dilutions, ranging from 25 pg/μL down to as little as 1.6 pg/μL (blue box, inset), revealing the exquisite sensitivity of the Femto Pulse system.

## Kit Specifications

Specification	165 kb BAC kit (p/n FP-1004-0275)
DNA Sizing Range	75 to 165,000 bp
<b>DNA Fragment Concentration Range</b>	
Multiple Fragment Concentration	12.5 to 100 pg/μL
Single Fragment Concentration ≤48,500 bp	1.6 to 25 pg/μL
Single Fragment Concentration ≥48,500 bp	3 to 50 pg/μL
Sizing Precision	15% CV
Sizing Accuracy	±15%
Pulsed Field Separation Time	170 minutes

Learn more:

[www.agilent.com/en/product/automated-electrophoresis/femto-pulse-systems/femto-pulse-system-dna-analysis-kits/55-kb-bac-kit-365744](http://www.agilent.com/en/product/automated-electrophoresis/femto-pulse-systems/femto-pulse-system-dna-analysis-kits/55-kb-bac-kit-365744)

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