



Scalable, automation-friendly and High Throughput PCR purification

Agencourt CleanSEQ System Dye Terminator Removal

Agencourt CleanSEQ is a SPRI (Solid Phase Reversible Immobilization) paramagnetic bead-based sequencing purification system with a simple three-step protocol. The Agencourt CleanSEQ method requires no centrifugation or filtration and efficiently purifies sequencing products to deliver superior quality sequencing data. Agencourt CleanSEQ's flexible, simple, and automation-compatible format is the preferred purification system of many genomic research facilities.

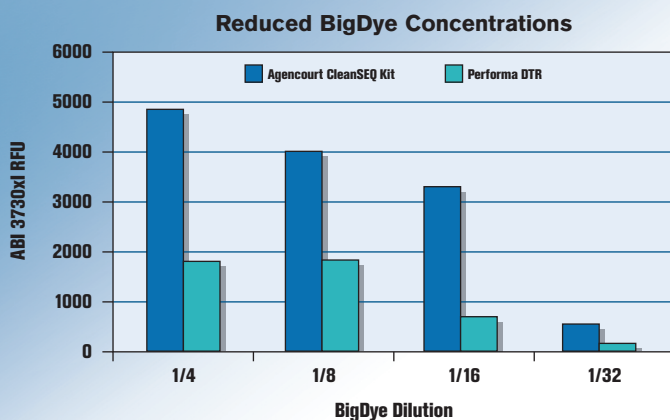


Figure 1. 3 μ L of amplified PCR[†] product: TP53_exon 5 was run in a 20 μ L sequencing reaction and purified with Agencourt CleanSEQ and Performa^{*} DTR.

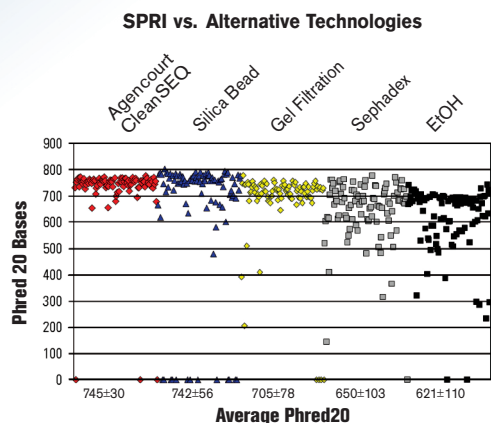


Figure 2. 96 pGEM DNA samples were sequenced using BigDye[®] v3.0 terminators then pooled and redistributed prior to cleanup. Sequencing reactions were cleaned using Agencourt CleanSEQ, ethanol precipitation or competitor kits and run on an ABI 3700. Competitor products were run according to product instructions. Chart shows distribution of Phred 20 read lengths with average Phred 20 values and standard deviations.

Genomics

Proteomics

Cell Analysis

Particle Characterization

Centrifugation

Lab Automation

Bioseparation

Lab Tools

High Quality Sequencing Results

Agencourt CleanSEQ consistently delivers:

- Long Phred 20 read lengths averaging over 700 bps
- Pass rates of 85% or higher
- Increased average signal strength
- Efficient elimination of sequencing reaction contaminants

Flexible Purification

Agencourt CleanSEQ is compatible with common sequencing chemistries and platforms in both 96- and 384-well formats.

Platforms:

- Beckman Coulter GenomeLab GeXP
- ABI Prism 3730, 3700 and 3100
- GE Healthcare MegaBACE^{*}

Supported Chemistries:

- BigDye versions 1.0, 1.1, 2.0, 3.0 and 3.1
- DYEnamic ET
- GenomeLab QuickStart and GenomeLab Methods Development Kit

High Average Signal

Agencourt CleanSEQ's unique purification method enables quality sequencing results with higher average signal intensities when compared to other methods such as Performa DTR (Figure 1). Higher average signal intensities allow a wider range of input sample types to be processed without potential loss of resolution and pass rates.

Superior Sequencing Data

Agencourt CleanSEQ produces high sequencing pass rates and average Phred 20 read lengths greater than 700 base pairs (see Figure 2). Results from direct comparison against EtOH precipitation, gel filtration, and silica-based magnetic reagents reveal Agencourt CleanSEQ's superior performance. This dye terminator removal system consistently delivers higher signal-to-noise ratios, higher signal intensities, and longer Phred 20 read lengths. It is more reproducible than alternative cleanup methods due to automation and low product loss and enables rapid, more cost effective sequencing (Figure 3).

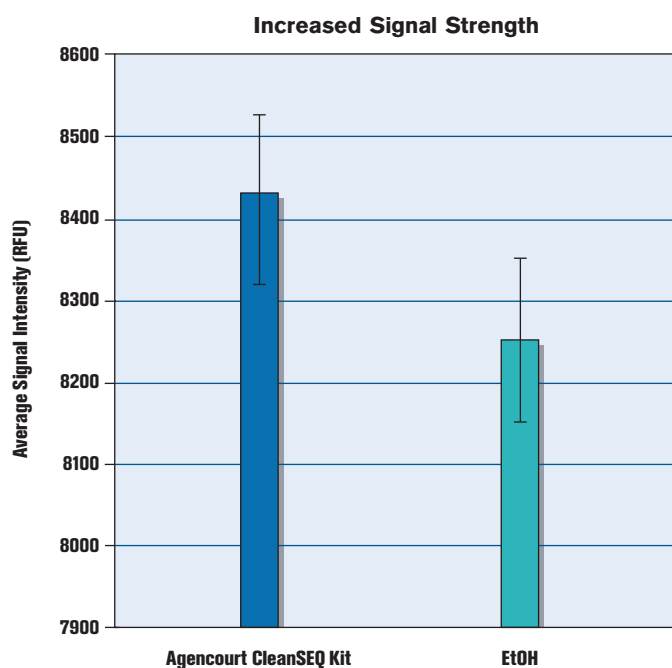


Figure 3. Identical 96-well plates were sequenced using BigDye v3.1 Terminators, purified to remove dye terminators by using Agencourt CleanSEQ or ethanol precipitation, and run on an ABI 3730xl.

Scalable and Automation-Friendly

The SPRI paramagnetic bead-based technology is easily scaled and automation-friendly allowing both high throughput and format flexibility. To provide a complete automation solution, Agencourt has software scripts available for Beckman Coulter's Biomek 3000, NX^P and FX^P.

Ordering Information

For more information, please visit our website at www.beckmancoulter.com or contact your local sales representative.

| Product | Size | Product # |
|---------------------------------|-----------------------------------|-----------|
| Agencourt CleanSEQ Kit (8 mL) | 800/1,600 preps [†] | A29151 |
| Agencourt CleanSEQ Kit (50 mL) | 5,000/10,000 preps [†] | A29154 |
| Agencourt CleanSEQ Kit (500 mL) | 50,000/100,000 preps [†] | A29161 |

Related Products

| | Product # |
|--------------------------------------|-----------|
| Agencourt SPRIPlate 96R Magnet Plate | A29164 |
| Agencourt SPRIPlate 384 Magnet Plate | A29165 |

[†] 96- or 384-well format

Table 1

| Robotic Platform | Plate Throughput |
|---|------------------|
| Biomek NX ^P 96 Multi-channel, 96 PlateStak*, and 384 Multi-channel | 7 plates/hour |
| Biomek FX ^P 96 Multi-channel, 96 PlateStak, and 384 Multi-channel | 10 plates/hour |
| Biomek FX ^P dual pod 96 Multi-channel, 96 PlateStak, and 384 Multi-channel | 8 plates/hour |
| Biomek NX ^P 384 Quad | 3 plates/hour |
| Biomek FX ^P and FX ^P dual pod 384 Quad | 4 plates/hour |
| Biomek NX ^P 384 PlateStak | 9 plates/hour |
| Biomek FX ^P and FX ^P dual pod 384 PlateStak | 10 plates/hour |
| Biomek NX ^P and FX ^P Span-8 | 1 plate/hour |
| Biomek 3000 | 1 plate/hour |

Kit Components

- Agencourt CleanSEQ Reagent



For Research Use Only. Not for use in diagnostic procedures.

[†] The PCR process is covered by patents owned by Roche Molecular Systems, Inc., and F. Hoffman-La Roche, Ltd.

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