

# Simplify reaction setup for dye terminator cycle sequencing

## GenomeLab DTCS Quick Start Kit

Blood Banking  
Capillary Electrophoresis  
Centrifugation  
Flow Cytometry  
**Genomics**  
Lab Automation  
Lab Tools  
Particle Characterization



**TABLE 1**

Sample	# of Bases	Accuracy
pUC18 50fmol	500	99.12%
	550	99.18%
	600	99.27%
	700	99.24%
pUC18 100fmol	500	99.30%
	550	99.36%
	600	99.41%
	700	99.33%

**TABLE 2**

Sample	# of Bases	Accuracy
pUC18 1/2 reaction	500	99.49%
	550	99.53%
	600	99.56%
	700	99.38%
pUC18 1/4 reaction	500	99.34%
	550	99.22%
	600	99.05%
	700	98.61%

Dye terminator cycle sequencing (DTCS) reactions incorporate many components, including DNA polymerase, pyrophosphatase, buffer, dNTPs, dye terminators, DNA templates and primers. The stepwise addition of so many components is time consuming, and if done manually, can introduce errors associated with pipetting small volumes and viscous solutions.

The GenomeLab DTCS Quick Start Kit simplifies this process by using a master-mix of many of the components, thereby reducing the number of pipetting steps from ten to four while using larger transfer volumes to reduce pipetting error. Each kit provides enough reagents to complete 100 sequencing reactions.

Performance for the GenomeLab GeXP Genetic Analysis System, using the Quick Start Kit, is comparable to that achieved with the standard DTCS chemistry using the LFR-1 method. Table 1 represents an average of 24 individual samples run using this chemistry and summarizes the percent accuracy calculated at 500, 550, 600 and 700 bases. Accuracy is calculated using a call threshold setting of zero, which disallows all ambiguous calls (N), providing a more accurate yet conservative estimate of read length. Table 2 represents the same analysis using 1/2 X and 1/4 X reactions\*.

\* Beckman Coulter recommends using full reaction concentrations to achieve the best system performance over a wide array of sample templates.

# GenomeLab DTCS Quick Start Kit

## Specifications

Contains volumes required for 100 reactions:

- Quick Start Mix..... 880  $\mu$ L
  - dATP, dCTP, dTTP, dITP
  - ddUTP, ddGTP, ddCTP, ddATP (WellRED label)
  - Tris-HCl, MgCl<sub>2</sub> reaction buffer - pH 8.9
  - Thermo Sequenase DNA Polymerase I
  - Pyrophosphatase
- (-) 47 Sequencing Primer..... 240  $\mu$ L
- pUC18 Control Template..... 20  $\mu$ L
- Glycogen..... 110  $\mu$ L
- Mineral oil..... 5 mL
- Sample Loading Solution (SLS) ..... 6 mL

For more information about the GenomeLab product line, visit [www.beckmancoulter.com/genomelab](http://www.beckmancoulter.com/genomelab)

## Ordering Information

### Kit

608120 GenomeLab DTCS Quick Start Kit

### Instrument

A26572 GenomeLab GeXP Genetic Analysis System, Dual Plate

A62684 GenomeLab GeXP Genetic Analysis System, Single Plate



# Automated Nucleic Acid Sample Preparation

Agencourt sample preparation reagents, coupled with our Biomek Series automated workstations, provide a top-notch solution for a variety of applications.

Based on the patented SPRI technology, the Agencourt CleanSEQ system is ideal for post reaction purification of sequencing products. Its simple protocol requires no centrifugation or filtration and efficiently purifies sequencing products to deliver superior sequencing data. The Agencourt CleanSEQ kit is easy to use, flexible, and automation-compatible. It is the preferred purification system of many genomic research facilities. For more information, visit [www.beckmangenomics.com](http://www.beckmangenomics.com)

This process can be performed manually or fully-automated on the Biomek Series automated workstations.

For more information about the Biomek Series automated workstations, visit [www.beckmancoulter.com](http://www.beckmancoulter.com).

## Ordering Information



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