



Simplify Reaction Setup

CEQ™ DTCS QUICK START KIT

FOR DYE TERMINATOR CYCLE SEQUENCING



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 CEQ DTCS Quick Start Kit simplifies this process by using a master-mix of many of the components – reducing the number of pipetting steps from 10 to 4 while using larger transfer volumes to reduce pipetting error. Each kit provides enough reagents to complete 100 sequencing reactions.

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%

CEQ 2000XL performance 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.

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%



SPECIFICATIONS

CEQ™ DTCS QUICK START KIT

Contains volumes required for 100 reactions:

- Quick Start Mix 880 µls
 - dATP, dCTP, dTTP, dTTP
 - ddUTP, ddGTP, ddCTP, ddATP (WellRED label)
 - Tris -HCl, MgCl₂ reaction buffer - pH 8.9
 - Thermo Sequenase DNA Polymerase I*
 - Pyrophosphatase
- (-) 47 Sequencing Primer 240 µls
- pUC18 Control Template 20 µls
- Glycogen 110 µls
- Mineral oil 5 mls
- Sample Loading Solution (SLS) 6 mls

* Although equivalent readlength/accuracy performance have been demonstrated between the standard CEQ DTCS and Quick Start Kits, slight variations in the electropherogram may exist, as they utilize different DNA polymerases.

ORDERING INFORMATION

PART NO.	DESCRIPTION
608120	CEQ DTCS - Quick Start Kit
608000	CEQ DTCS - Standard Kit



Look for the symbol identifying the use of LPA, an assurance of high-performance DNA analysis.



Developing innovative solutions in genetic analysis, drug discovery, and instrument systems.

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