QuantumSeq

## QuantumDye<sup>™</sup> Terminator v1.1 Cycle Sequencing Kit

## DESCRIPTION

The QuantumDye<sup>™</sup> v1.1 Terminator Cycle Sequencing Kit is based on the Sanger Dideoxynucleotide Chain Termination method. The kit is provided with a 2.5x concentrated ready-reaction premix, plus sequencing dilution buffer and controls (plasmid DNA template and sequencing primer) fully optimized for a highly flexible chemistry, designed for all kinds of sequencing applications, including *de novo* sequencing and resequencing. The v1.1 kit generates data with uniform peak heights and optimized signal balance to produce long, high-quality reads that require optimal basecalling adjacent to the primer and for sequencing short PCR product templates with rapid electrophoresis run modules. In addition, the v1.1 kit may provide more accurate base assignments for heterozygote and mutation detection.

## **KIT CONTENTS**

QSD1-100 QuantumDye Terminator Cycle Sequencing Kit v1.1, 100 reactions:

	Component	Concentration	Quantity
•	QuantumDye Cycle Sequencing Mix	2.5x	1 x 800 µl
•	QuantumDye Sequencing Buffer	5x	2 x 1.0 mL
•	pGEM <sup>®</sup> Control DNA	100 ng/ μl	1 x 10 μl
•	M13(-21) Control Primer	5 μΜ	1 x 10 μl

## PROTOCOL

The QuantumDye Terminator Kit was developed as a direct, drop-in substitute for BigDye<sup>®</sup> Terminator v1.1, with no changes in protocol, dilution, workflow, calibration or settings using DyeSet E. Simply dilute the QuantumDye Cycle Sequencing Mix and substitute it for BigDye Terminator as described in your SOP. Using 0.5 - 1.0  $\mu$ l of QuantumDye Cycle Sequencing Mix (1:16 - 1:8 dilution) produces results that are indistinguishable from BigDye Terminator v1.1 in comparison reactions with uniform peak heights, extremely low background and long sequence reads with high confidence scores.

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