

SEQUENCING WITH THE SPECTRUM COMPACT CE-SYSTEM: A PERSONAL CAPILLARY ELECTROPHORESIS DEVICE

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The Spectrum Compact CE System, a collaborative development between Promega Corporation and Hitachi High-Technologies Corporation, allows laboratories of all sizes the freedom to carry out single nucleotide polymorphism analysis, PCR sizing and microsatellite analysis, *de novo* sequencing, NGS validation, and mutation detection. This four-capillary benchtop capillary electrophoresis instrument runs 1-32 samples and features single base resolution and 6-dye detection along with an integrated touch-screen for instrument operation. Reagents are provided in pre-filled cartridges, including a choice of separation polymers that streamline instrument setup and support both fragment analysis and sequencing workflows. To support the sequencing application, Promega has developed the ProDye™ Sequencing System. This is a dideoxy dye-terminator based sequencing chemistry that can be used to generate readable sequences using a variety of templates. In combination with the Spectrum Compact CE System, read lengths of ≥ 600 bases can be obtained with run times of ≤ 32 minutes and ≥ 700 bases with a run time of ≤ 60 minutes. Data will be presented showing sequencing data obtained from a variety of templates using the ProDye™ Sequencing System in combination with the Spectrum Compact CE System.

Key Words: Spectrum Compact CE System, ProDye™ Sequencing System, dideoxy terminator sequencing