



BioSpect

the business of BI

24 years of leveraging the business of Bio
www.biospectrumindia.com

Promega launches 24-Capillary Spectrum CE System for STR Analysis

28 October 2026 | News

New high-throughput capillary electrophoresis system triples sample throughput for DNA laboratories using 5-, 6- and 8-dye STR chemistry for casework, database and paternity testing



Promega Corporation has launched a 24-capillary model of the Spectrum CE System, expanding its portfolio of capillary electrophoresis (CE) instruments for DNA typing and forensic analysis. Designed for high-throughput laboratories, the new system enables increased sample processing capacity while supporting advanced short tandem repeat (STR) analysis using 5-, 6- and 8-dye chemistries.

The Spectrum CE Systems are the only capillary electrophoresis (CE) instruments designed and tested to support 8-dye STR analysis kits. This capability enables the use of advanced multiplex kits, including Promega's Paradyme™ 27GY STR System, which incorporates the proprietary Reduced-Stutter Polymerase (RSP). This innovative chemistry reduces stutter signal intensity by eightfold, often below analytical thresholds, helping laboratories interpret DNA mixtures more effectively and obtain reliable results from challenging samples.

"For twenty years, progress in forensic DNA meant adding loci and hoping interpretation would keep up," says Timothy Kupferschmid, Senior Director of Genetic Identity at Promega. "Eight-dye chemistry adds the loci at smaller base pair size, and Reduced-Stutter Polymerase finally addresses the artifact that made mixtures hard to interpret in the first place. Running that chemistry at 24-capillary capacity changes what a laboratory can accomplish."

The system has already been installed in several forensic DNA laboratories across North America, Europe, Asia and the Middle East ahead of its broader commercial launch. It is available for sale immediately.

An open-platform solution, the Spectrum CE System is compatible with STR chemistries from multiple manufacturers and supports analysis software from various vendors, offering laboratories greater flexibility. Its four 96-well plate positions allow continuous access to samples during active runs, helping streamline workflows and reduce scheduling requirements.

The 24-capillary model completes Promega's Spectrum CE portfolio, alongside the 8-capillary Spectrum CE System and the four-capillary Spectrum Compact CE System, catering to laboratories of varying sizes and workloads.

Promega also provides comprehensive implementation support, including on-site optimisation, customised validation and hands-on training, backed by experience from more than 200 forensic customer validation projects globally.