

## **Analysis of Microsatellite Instability using the new SeqStudio Flex Capillary Electrophoresis Instrument**

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The detection of microsatellite instability (MSI) in tumor samples by capillary electrophoresis (CE) is one of the most widely used PCR/CE fragment analysis applications in molecular diagnostics. Kits for MSI analysis by CE have been commercially available for many years. The SeqStudio Flex is a new mid-throughput CE platform that supports fragment analysis and sequencing applications.

Here we demonstrate the use of the TrueMark MSI analysis kit on the SeqStudio Flex CE instrument on research samples. We show accuracy and concordance in a side-by-side comparison of the SeqStudio Flex and the Model 3500 Genetic Analyzer using a panel of DNA samples extracted from colon, gastric and endometrial tumor tissue FFPE blocks. We also demonstrate a high level of reproducibility of the SeqStudio Flex in a 3 operator x 2 instrument x 2 repeat study using a set of 7 colon tumor FFPE samples. To increase robustness of the MSI status result, pairs of matched tumor and normal FFPE tissue samples were analyzed in all cases. A development version of the TrueMark MSI interpretive software capable of analyzing files obtained on the SeqStudio Flex was used to determine MSI status. For Research Use Only. Not for use in diagnostic procedures.