

**ABI™ PRISM® 377 DNA SEQUENCER, 96 LANES: VALIDATION WITH AMPF/STR™ MULTIPLEX KITS**

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A protocol has been validated for using the AmpF/STR™ reagents on the 96 lane version of the ABI™ Prism® 377 DNA Sequencer. This high throughput version of the 377 instrument allows for the simultaneous analysis of up to 96 samples (including allelic ladders and controls).

The protocol has been optimized for peak resolution and for semi-automated lane tracking. Here, several variables including loading technique, loading volume, rinsing wells & TBE concentration seemed to be most important for achieving consistent single base resolution. Run-in voltage and Run-in time were also evaluated and found to play an important role in keeping lanes separate and distinct so as to be easily tracked and analyzed.

Overall, the results indicated that the sensitivity, sizing precision and reproducibility achieve the desired goal of accurate genotyping as concordance was achieved with population samples analyzed on the ABI™ Prism® 310 Genetic Analyzer.