

VALIDATION OF THE QIAGILITY LIQUID HANDLER FOR AUTOMATED PCR SETUP

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Automation of DNA analysis methods has been a continually evolving process at the Northeastern Illinois Regional Crime Laboratory (NIRCL). The latest instrument is the QIAgility, an automated liquid handler from Qiagen, for the purpose of PCR amplification setup; quantitation using Quantifiler® Duo DNA Quantification Kit and DNA analysis using the Identifiler® Plus amplification kit.

The QIAgility is a benchtop instrument with a small footprint which can be customized to accommodate a variety of tips, tubes, and plates for any procedure the instrument has been programmed for. The pipetting head can aspirate, dispense, aliquot, dilute, and mix the precise microliter volumes suitable for PCR amplification setup.

Various studies were performed in-house demonstrating the reproducibility, precision, sensitivity, and ability to minimize contamination. The versatile platform of the QIAgility provides an effective means to increase casework efficiency, reduce sampling error, and improve the outcome of the DNA product. ✂