

PRELIMINARY QIACUBE TESTING

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The Wisconsin State Crime Laboratory-Milwaukee (MSCL) is testing the QIAcube, from QIAGEN, for the automation of differential washes. This method frees up an hour to an hour and a half of analysts' time. It has two protocols, one for 6 samples and one for 12 samples. Three methods were compared: by-hand differential extraction with automated DNA IQ, QIAcube using QIAGEN chemistry with by-hand DNA IQ, and QIAcube using MSCL chemistry with by-hand DNA IQ. Each sample contained half of a buccal swab spiked with semen. Five dilutions of semen (1:2, 1:100, 1:500, 1:1000, 1:5000) were used for each method. For every dilution except 1:100, more human DNA was quanted on the differentials done by hand. Also, for the first three dilutions, more male DNA was quanted on the differentials done by hand; for the last two dilutions, none of the methods had male DNA. The QIAcube is easy to use and allows the analysts more time to do other work. Although the QIAcube did well in retaining DNA in both the sperm and non-sperm fractions, two inexperienced interns were able to get better results for quantification. ☘