

Y-SCREEN METHOD VALIDATION: IMPLEMENTING A PLATE EXTRACTION AND AUTOMATED QUANTITATION APPROACH

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The Kansas City Police Crime Laboratory (KCPCL) set out to modify the pre-existing Y-screen extraction method for compatibility with a 96 deep-well plate format and subsequent quantitation using an automated liquid handler (Hamilton ID STARlet®). This presentation will summarize the method developed, discuss the validation results, and highlight the potential interpretational and workflow issues with this method as it applies to the screening of sexual assault type samples for male DNA. In summary, the Y-screen method is an effective tool for male DNA detection and is a better predictor for subsequent detection of a male profile than other serological techniques; however, the method is not risk-free and the potential for false negatives was observed.