

Reduce repeated centrifugation

Eliminate time consuming wash steps

Scale up sample processing to 96 format



VERSA 1100 Gene – Automated Liquid Handling Workstation

Differential Digestion for Sexual Assault Kits Utilizing DNase I

Differential extractions are a labor intensive and time consuming process. Even with validated methods that streamline the workflow, such as the "Direct to DNA" approach, laboratories are still finding themselves ill equipped to tackle the Sexual Assault Kit (SAK) backlog.

Aurora believes it does not have to be this way. Automation has been a key stepping stone in helping combat the turnaround time for SAK processing. However, this was only half the solution. What was needed was an updated approach.

Utilizing DNase I, the Oakland Police Department completely eradicated their backlog using the VERSA 1100 Gene. Due to the system being an open platform, automation of slide staining was easily achievable, thus not only giving the option for the "direct to DNA' approach, but also automatically separating all fractions. It allows for simultaneous work on the extraction of a certain fraction if needed.

DNase I is used to digest any epithelial cells before conducting lysis in the sperm cell fraction, providing two advantages; it ensures no fraction carryover, and, it removes the aspect of subsequent repetitive wash steps.

Where does the VERSA 1100 fit in with a differential?



Workstation

Quantification

STR Genotyping

The DNase I workflow



Technical Specifications

Differential digestion protocols can vary from lab to lab. Having the ability to incorporate different workflows over time is an important aspect to take in to consideration within the ever changing field of forensics. It was this fact to as why it was so important that the VERSA 1100 was left completely modular and open, this in turn means there are a plethora of adaptors available for the multitude of commercial downstream extraction workflows employed in laboratories.



The typical deck layout for the differential workflow configured for the Qiagen EZ1

	Versa 1100
Liquid Handling Head	4 channel
Liquid Level Sensing	\checkmark
Reagent Drop Pins	1-8
HEPA/UV /Fluorescent light enclosure	\checkmark
Length	99cm/39in
Width	75cm/29.5in
Height	90cm/35.4inc
Weight	162kg/357.1lbs



Optional: Promega Maxwell[™] extraction tray insert for the deck