The HID EVOlution™ - Extraction System
Platform for Productivity.
A Validated, Automated Solution.

Newly introduced legislation, enhanced funding opportunities, and increases in property crime submissions place forensic DNA laboratories under constant pressure to increase productivity and reduce sample turnaround time. Applied Biosystems and Tecan have partnered to help laboratories meet that challenge by developing a set of solutions, the HID EVOLution™ Systems, designed specifically to streamline sample workflows for Human Identification (HID) applications.

The Evolution in Extraction Technology

The HID EVOlution™ Extraction System combines the most powerful technologies available for automated liquid handling and forensic DNA extraction: The Tecan Freedom EVO® 150 automated liquid-handling workstation, and the Applied Biosystems PrepFiler™ Automated Forensic DNA Extraction Kit. Together, these tools provide a complete, validated solution that enables your laboratory to:

• Utilize a standard protocol for the majority of forensic sample types
• Significantly increase yield and concentration of DNA isolated from both routine and challenging forensic samples as compared to other commonly used methods (Figure 1)
• Easily remove sample substrates using the PrepFiler™ 96-Well Filter Plate/Spin Plate Assembly

• Process samples and elute purified DNA in either tubes or plates
• Extract DNA from 1-96 casework or database samples in under 2.5 hours
• Avoid laborious organic solvent extraction
• Track sample and reagent information together electronically with automatic barcode reading
• Implement rapidly with pre-validated, pre-programmed protocols
• Obtain high yield, high quality, purified DNA suitable for quantitative real-time PCR and short tandem repeat (STR) analysis

Figure 1: Quantifiler® Human kit results showing total yield of DNA isolated from simulated forensic casework samples (prepared from 2 µL blood, 50 µL saliva and 1 µL semen) using the PrepFiler™ kit and 4 other methods (manual and automated) commonly used in human identification laboratories. For all sample types investigated, the PrepFiler™ kit matched or exceeded the concentration and total yield of DNA produced by other methods. For certain sample types, the PrepFiler™ kit yielded greater than 100% more DNA than other methods tested.
The Most DNA from the Most Samples, Automatically.

The HID EVOlution™- Extraction System provides a validated solution for robust, reliable automation of forensic DNA extraction. The system reduces tedious and repetitive hands-on sample handling, minimizes pipetting and transposition errors, and streamlines the transfer of sample data between instrumentation from Tecan and Applied Biosystems - the world’s most trusted provider of human identification solutions.

<table>
<thead>
<tr>
<th>Configured for HID applications</th>
<th>Specially designed worktable is organized for fast, easy sample processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated sample and labware barcode identification</td>
<td>Confirms samples and labware are correctly positioned</td>
</tr>
<tr>
<td>Disposable pipetting tips and tip-ejection</td>
<td>Minimizes cross contamination and aerosol formation</td>
</tr>
<tr>
<td>Customized software wizards</td>
<td>Intuitive software minimizes errors while enabling simple run-to-run start up and easy data transfer</td>
</tr>
<tr>
<td>Validated and optimized protocols</td>
<td>Facilitates quick start up and implementation of the PrepFiler™ Kit and the HID EVOlution™- Extraction System</td>
</tr>
</tbody>
</table>

Seamless Integration
Regardless of throughput requirements, your laboratory benefits from the seamless implementation of PrepFiler™ magnetic particle technology on a robust liquid handling platform running dedicated, intuitive software. Most importantly, it frees your forensic DNA experts to focus on other tasks.

The HID EVOlution™- Extraction System makes sample processing easy and secure. Automated barcode reading and sample tracking mean that unique sample numbers are entered only once, avoiding data entry errors. The instrument confirms the sample tube position before the run.

Created with Future Flexibility in Mind
Validated according to SWGDAM and ENFSI guidelines*, the HID EVOlution™- Extraction System is a foundation for human identification laboratories today. The entire solution is expandable to accommodate future applications for the changing needs of forensic laboratories, allowing for further improvements in processing speed and efficiency.

*For more information on SWGDAM or ENFSI guidelines, please visit the following websites: www.enfsi.org and www.fbi.gov/hq/lab/backissu/july2000/strig.htm
Automate with Confidence.

You won’t find two better partners than Tecan and Applied Biosystems. The Tecan Freedom EVO® sets the standard for automated liquid handling platforms, and Applied Biosystems Human Identification solutions deliver the most trusted, reliable, and robust results which improve productivity.

Put them together, and you have a superior solution that meets the challenges facing forensic DNA laboratories today. You also have access to experienced professionals, with training in forensic DNA analysis methods, who can provide you with expert support, training, and assistance.

For more information about the HID EVOLution™ Systems, contact your local Applied Biosystems or Tecan office.

The HID EVOLution™ - Extraction System

Tecan instrumentation required:
- Freedom EVO® 150 base unit with 8-channel liquid handling arm configured with disposable tips, 1000 µL syringes, stainless steel deck, and safety panel set
- PosID™ 3 module for identification of barcode labeled labware
- Freedom EVOware® Standard software package
- Applied Biosystems application software package including dedicated application wizard
- Te-Shake™ Module with heater option and custom adapter for the PrepFiler™ deep well processing block
- Tecan 200 µL and 1000 µL filtered disposable tips

Applied Biosystems reagents and consumables required:
- PrepFiler™ Automated Forensic DNA Extraction Kit P/N 4393135
- PrepFiler™ Automated Forensic DNA Extraction Kit (with plastics) P/N 4397977
- 96-well Magnetic Ring Stand P/N AM10050