



The HID EVOLution™ System

Platform for productivity.



A Validated, Automated Solution.

Newly introduced legislation, enhanced funding opportunities, and increases in property crimes 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 solution, the *HID EVOLution™* System, designed specifically to streamline routine sample workflows for Human Identification (HID) applications.

The Evolution in HID Technology

The *HID EVOLution™* System combines the most powerful technologies available for automated liquid handling and data transfer: The Tecan Freedom EVO® 150 automated liquid-handling workstation, the Applied Biosystems 7500 Real-Time PCR System, and the Applied Biosystems 3130x1 Genetic Analyzer. Together, these tools provide a complete validated solution that enables your laboratory to automatically:

- Set up quantitative real-time PCR using Quantifiler® DNA Quantification Kits.
- Normalize DNA concentrations using *HID EVOLution™* Software.
- Set up PCR reactions for commonly used AmpFℓSTR® PCR Amplification Kits.

Seamless Integration

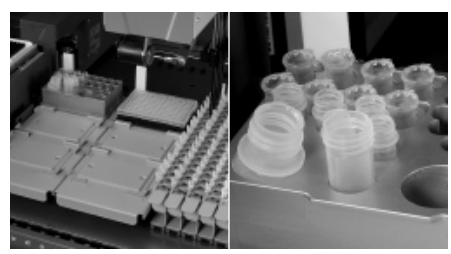
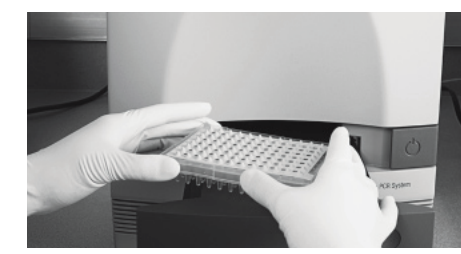
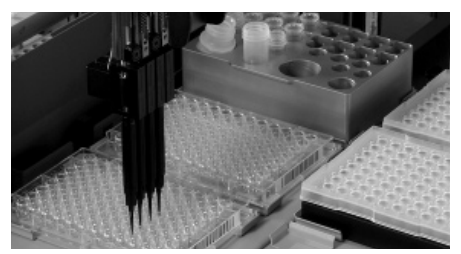


Regardless of throughput requirements, your laboratory benefits from the seamless integration of quantitative real-time PCR set-up, DNA normalization, PCR set-up, and data handling between instruments. Most importantly, it frees your DNA forensic experts to focus on other tasks.

The *HID EVOLution™* System organizes sample throughput by automating liquid handling and transferring sample information from one instrument to another according to validated protocols.

Created with Future Flexibility in Mind

Validated according to SWGDAM and ENFSI guidelines*, the *HID EVOLution™* 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: <http://www.enfsi.org> and <http://www.fbi.gov/hq/lab/fsc/backissu/july2000/strig.htm>

<p>Set up Quantifiler® Reactions ①</p>	<p>Perform Quantitative Real-Time PCR ②</p>	<p>Normalize DNA Concentration ③</p>	<p>Set Up AmpFℓSTR® Kit ④</p>	<p>Analyze Samples ⑤</p>
				
<p>Sample information is transferred automatically from the Tecan Freedom EVO® 150 to the Applied Biosystems 7500 Real-Time PCR System. By automating routine procedures, the <i>HID Evolution™</i> System reduces assay set up time and helps ensure the accuracy of sample data.</p>	<p>Data from Applied Biosystems 7500 Real-Time PCR System is easily exported to the Tecan Freedom EVO® 150, reducing transcriptional errors and improving ease of use.</p>	<p>DNA normalization based on real-time measurements consistently provides uniform sample dilution and helps improve the quality of STR amplification.</p>	<p>The <i>HID EVOLution™</i> System saves time and labor setting up PCR reactions, while minimizing the risk of error and cross contamination.</p>	<p>The Tecan Freedom EVO® 150 automatically transfers the data to the Applied Biosystems 3130 or 3130x1 Genetic Analyzer. By tracking sample information, <i>HID EVOLution™</i> Software identifies samples and associated data at every step in the analysis process.</p>

The World's Most Trusted HID Solutions— Now Automated.

The *HID EVOLution™* System provides a comprehensive, validated solution for DNA analysts by reducing the hands-on sample handling, minimizing pipetting errors, and streamlining the transfer of sample data between Tecan and Applied Biosystems instrumentation—the world's most trusted provider of human identification solutions.

<p>Configured for HID applications</p>	<p>Specially designed worktable is organized for fast, easy sample processing</p>
<p>Automated labware barcode identification</p>	<p>Confirms components and labware are correctly positioned</p>
<p>Specially designed reagent carriers</p>	<p>Clearly identifies correct placement of reagent tubes and bottles</p>
<p>Disposable pipetting tips and tip-ejection</p>	<p>Minimizes cross contamination and aerosol formation</p>
<p>Validated and optimized protocols</p>	<p>Facilitates quick start up and implementation of Quantifiler® and AmpFℓSTR® Kits</p>
<p>Customized software wizards</p>	<p>Intuitive software makes operation effortless</p>

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™* System, contact your local Applied Biosystems or Tecan office.

The HID EVOLution™ System

Tecan instrumentation required:

- Freedom EVO® 150 base unit with 4-channel liquid handling arm configured with disposable tips, 250 µL syringes, stainless steel deck, and safety panel set
- PosID3™ Module for identification of barcode labeled labware
- Freedom EVOware® Standard Software Package
- Applied Biosystems Application Software Package including Sample Oriented EVOware® and Custom Applied Biosystems Application Wizard
- Applied Biosystems HID EVOLution™ System Kit Carrier for Applied Biosystems Quantifiler® reagents
- Applied Biosystems HID EVOLution™ System Kit Carrier for Applied Biosystems AmpF/STR® reagents

Applied Biosystems reagents for quantitative Real-Time PCR:

- Quantifiler® Human DNA Quantification Kit
- Quantifiler® Y Human Male DNA Quantification Kit

Applied Biosystems reagents for PCR Amplification:

- AmpF/STR® Profiler® Amplification Kit
- AmpF/STR® COfiler® PCR Amplification Kit
- AmpF/STR® Identifier® PCR Amplification Kit
- AmpF/STR® SGM Plus® PCR Amplification Kit
- AmpF/STR® MiniFiler™ PCR Amplification Kit
- AmpF/STR® Yfiler® PCR Amplification Kit
- AmpF/STR® SEfiler™ PCR Amplification Kit

Applied Biosystems instrumentation required:

- Applied Biosystems 7500 Real-Time PCR System
- Applied Biosystems 3130 Genetic Analyzers
- Applied Biosystems 3130x1 Genetic Analyzers
- GeneAmp® PCR System 9700

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