

Applied Biosystems 3130 and 3130x/ Genetic Analyzers



What are the 3130 and 3130x/ Genetic Analyzers?

The 4-capillary 3130 Genetic Analyzer and the 16-capillary 3130x/ Genetic Analyzer provide all of the benefits of the industry leading fluorescence based capillary electrophoresis systems previously developed by Applied Biosystems. These instruments leverage several generations of technology improvements to deliver the highest level performance, cost-effectiveness and productivity available. The 3130 Genetic Analyzer may be upgraded to the 16-capillary 3130x/ instrument to meet additional throughput needs.

The 3130 and 3130x/ instruments are designed to provide data quality, automation, ease-of-use and instrument reliability. Customers select these instruments because they provide reliable, robust results and are easy to operate.

Features	Benefits
Reliability	<ul style="list-style-type: none"> Proven technology Well characterized instrument performance
Consistency	<ul style="list-style-type: none"> Improved run-to-run and capillary-to-capillary consistency
Ease of Use	<ul style="list-style-type: none"> Incorporation of polymer delivery system and software wizards results in decreased instrument set-up and maintenance time
Validation	<ul style="list-style-type: none"> Validated for use in HID applications with AmpFℓSTR\circ kits
Whole Product Solution	<ul style="list-style-type: none"> Extensive technical reagent, software, and instrument support provided by expert field application scientists

Why should my laboratory upgrade to a 3130 or 3130x/ Genetic Analyzer?

- The 3130 and 3130x/ instruments incorporate an automated polymer delivery process. This eliminates the need for manual filling, priming, and loading of polymer, reducing time and decreasing run-to-run variation.
- The choice of both 4-capillary and 16-capillary systems provides flexibility to laboratories with differing throughput needs. An upgrade package from the 4-capillary configuration makes state-of-the-art capillary technology available where budget or throughput requirements may be limited.
- The oven door gasket on the 3130 and 3130x/ instruments has been changed to provide a more consistent sealing surface, improving reproducibility.
- The Applied Biosystems 3130 and 3130x/ Genetic Analyzers are driven exclusively by Data Collection Software v3.0. Data Collection Software v3.0 maintains the same workflow as Data Collection Software v2.0 and adds software wizards which perform the following functions:
 - Install Array Wizard
 - Change Polymer Type Wizard to change to a different polymer type
 - Replenish Polymer Wizard to replenish with the same polymer (same or different lot)
 - Bubble Remove Wizard
 - Water Wash Wizard
 - Instrument Shutdown Wizard
 - Auto-sampler Calibration Wizard
 - Update Cap Array Info
- Other Software Changes
 - Windows \circ XP support
 - Plate Editor keyboard shortcut for "Add Sample Run" changed from Shift-A to Alt-A
 - Default temporary EPF file location has been changed from "C" drive to "F"
 - The condition bounds for the G5 dye set have been changed to address the performance of Applied Biosystems new Matrix Standards (part numbers 4345831 and 4345833).
 - Early database full messages
 - Electronic Signature features

Frequently Asked Questions

Q Why should I upgrade from a 310 to a 3130 or 3130x/ Genetic Analyzer?

A Upgrading from the 310 instrument to the 3130 series Genetic Analyzers provides increased throughput allowing a greater number of samples to be processed with less hands-on time. The novel polymer delivery system and the addition of helpful software wizards to the data collection software increase the ease of use and minimize maintenance time. Both instruments are compatible with GeneMapper® *ID* Software version 3.2 and allow for simplified analysis of data generated using AmpFℓSTR® kits.

Q Is the 3130x/ Genetic Analyzer validated for use for forensic casework and database samples?

A Yes, Applied Biosystems has conducted experiments, reviewed data, and determined that the 3130 series instruments produce results that are robust, reliable, reproducible, and accurate when used in conjunction with AmpFℓSTR kits for the analysis of genomic DNA samples in accordance with the guidance provided by DAB/SWGDAM.

The Applied Biosystems 3130 and 3130x/ Genetic Analyzers have undergone a verification process defined by Applied Biosystems. However, human identification laboratories analyzing forensic, paternity, databasing, and single-source samples that choose to use the Applied Biosystems 3130 and 3130x/ Genetic Analyzers for data analysis should perform their own appropriate validation

Comparative Instrument Features

Feature	310 Macintosh or NT	3100-Avant/3100	3130/3130x/
Capillary Number	Single capillary	4-capillary (Avant) 16-capillary (3100)	4-capillary (3130) 16-capillary (3130x/)
Polymer Delivery	Syringe	Syringe	Pump
Software Wizards	No	No	Yes
Data Collection Software	2.1 (Macintosh) 3.0 (Windows 2000) 3.1 (XP)	2.0 (Avant) 1.1 and 2.0 (3100)	3.0
Operating System	Macintosh Windows 2000/XP	Windows NT	Windows XP
Autoanalysis with GeneMapper® <i>ID</i> Software	No	Yes	Yes

Instrument Part Numbers

Item	Part Number
Applied Biosystems 3130 Genetic Analyzer with Computer Workstation HID	4363192
Applied Biosystems 3130x/ Genetic Analyzer with Computer Workstation HID	4363193
Upgrade 3100 System to 3130x/ HID System	4363194
Upgrade 3100 System to 3130x/ HID System with Computer	4363195
Upgrade 3100-Avant System to 3130 HID System	4363196
Upgrade 3100-Avant System to 3130x/ HID System	4363197

Reagent and Consumables Part Numbers

Item	Part Number	3130	3130x/
Matrix Standard Set DS-32 (Dye Set F) Note: Matrix Standard Set DS-32 is for use on multicapillary instruments (3100/3100-Avant and the 3130/3130x/ Genetic Analyzers)	4345831	✓	✓
Matrix Standard Set DS-33 (Dye Set G5) Note: Matrix Standard Set DS-33 is for use on multicapillary instruments (3100/3100-Avant and the 3130/3130x/ Genetic Analyzers)	4345833	✓	✓
3130 POP-4™ polymer	4352755	✓	✓
Hi-Di™ formamide	4352755	✓	✓
10X Genetic Analyzer Buffer with EDTA Note: Use 10X Genetic Analyzer Buffer with EDTA to prepare 1X Genetic Analyzer Buffer with EDTA (1X running buffer).	402824	✓	✓
3130 and 3100-Avant Capillary Array, 36 cm	4333464	✓	
3130x/ and 3100 Capillary Array, 36 cm	4315931		✓

What information is available on the 3130 and 3130x/ Genetic Analyzers?

- System Profile: Stock Number 106MI60-01
- Brochure: Stock Number 106BR10-01
- Product Bulletin – 3130 Series Upgrade: Stock Number 106PB12-02
- Getting Started Guide, Rev B: Part Number 4352715B
- Protocols for Processing AmpFℓSTR PCR Amplification Kit PCR Products: Applied Biosystems 3130/3130x/ Genetic Analyzers Using Data Collection Software v3.0: User Bulletin: Rev A: Part Number 4363787A/112UB07-01

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