Agilent NovoCyte Advanteon

Laser/Filter availability for 1, 2, or 3 laser instruments

<table>
<thead>
<tr>
<th>Lasers</th>
<th>405 nm</th>
<th>488 nm</th>
<th>561 nm</th>
<th>640 nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>445/45 nm</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>525/45 nm</td>
<td>✔</td>
<td>✔</td>
<td></td>
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</tr>
<tr>
<td>572/28 or 586/20 nm</td>
<td>✔</td>
<td>✘</td>
<td>✘</td>
<td>✔</td>
</tr>
<tr>
<td>615/20 nm</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>667/30 nm</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✘</td>
</tr>
<tr>
<td>695/40 nm</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✘</td>
</tr>
<tr>
<td>725/40 nm</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✘</td>
</tr>
<tr>
<td>780/60 nm</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✘</td>
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</tbody>
</table>

Optics

Laser: Solid state laser with on-board thermal-electric cooling and guaranteed thermal stability and beam quality

Laser beam profile: 10 x 80 μm elliptical beam

Laser operation: Laser on only when acquiring samples

Optical alignment procedure: Fixed; no operator alignment required

Fluorescence detection: Silicon photomultiplier (SiPM) with high photon detection efficiency; Individual photodector for each channel

FSC/SSC sensitivity: FSC: 0.4 μm; SSC: 0.1 μm

Fluorescence threshold sensitivity: FITC < 75 MESF; PE < 50 MESF; APC < 20 MESF

Fluorescence resolution: < 3% CV for CEN

Optical filters: User exchangeable, “Smart” filter automatically read by the system

Fluidics

Flow cell: 170 x 290 μm rectangular quartz flow cell

Sample acquisition rate: 100,000 events/second

Sample delivery: Positive-displacement syringe pump enabling direct volumetric absolute count without the need for reference counting beads

Volumetric absolute count precision: < 5%

Sample flow rate: 5 - 120 μL/min, continuously adjustable

Sheath flow rate: 6.5 mL/min

Sample aspiration volume: 5 μL - 5 mL

Manual sample format: 12 x 75 mm tube, 1.5 & 2.0 mL Eppendorf tube

Compatibility to autosampler: No fluidic tubing disassembly or reconnection required

Fluid level sensing: Active sensing with automated warnings when any fluid level is out of specified range

Fluid container capacity: 3 L sheath, 3 L waste, 500 mL cleaning, 500 mL rinse; Optimal large fluidic cart with 15 L sheath and 15 L waste

Carryover: < 0.1%

Sample injection probe (SIP) rinse: Automated flying collar wash of inner and outer SIP surface after each sampling

Fluidics system monitoring: In-line pressure sensor monitors the pressure in real time. Automated system recovery when pressure is out of range due to clogging

Fluidics system maintenance: Automated startup and shutdown with fluidic system cleaning. Automated user executable cleaning, debubble, rinse, unlog, priming, and decontamination

Sample recovery: Ability to recover sample (if available) after acquisition is complete
## Data Management

**Software**
NovoExpress

**Parameters**
Height and area for FSC, SSC and all fluorescent channels, width off trigger channel, time

**Dynamic range**
24 bit; 7.2 decades logarithmic scale

**Fluorescence photodetector gain control**
User adjustable, optimized, default gain setting for each individual channel

**Compensation**
Full inter-beam matrix, during or post acquisition

**Output data files**
FCS 3.0, FCS 3.1, CSV, batch PDF reports

**Data report**

**Workstation**
Intel core i5 processor. 8G RAM. 1T Hard drive. Small form factor. Optional higher configuration workstation

**Monitor**
23.8 inch flat panel (1920 x 1200 resolution)

**Computer operating system**
Microsoft Windows 10 Professional (64 bit) or new version with Microsoft Office pre-installed

**Usage monitor**
Comprehensive transaction log and system log

**User management**
Administrative creation of individual user accounts and user groups with privilege control. Configurable roles for individual users. User operation time tracking

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### Agilent NovoSampler Q Specifications

#### Physical Parameters

<table>
<thead>
<tr>
<th>Dimension (W X D X H)</th>
<th>16.9 X 11.0 X 11.8 in (43 X 28 X 30 cm)</th>
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<tbody>
<tr>
<td>Weight</td>
<td>29.3 lbs (13.3 kg)</td>
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</table>

#### Installation

- **Installation method and calibration**
  Automated self-calibration after installation. No need to reconfigure fluidics tubing or connection. Automated self-calibration after installation

- **Labware compatibility**
  Agilent 40 tube rack for 12 x 75 mm tube, 24-well, 48-well, 96-well (flat, U-, V-bottom), and 384-well microtiter plates

- **Labware calibration**
  Automated bottom height mapping and calibration to accommodate different labware. Calibrated labware template can be saved for future use

#### Performance and capability

- **SIP collision detection**
  Automated fluidics system recovery after detection of SIP collision; automatic acquisition of the next sample after successful recovery

- **Carryover**
  < 0.1 %

- **Mix mode**
  Orbital shaking up to 3000 rpm. User definable mixing frequency, speed, acceleration, and duration

- **Bar code reading**
  Integrated barcode reader. Automatically prompt barcode as specimen name in the software

- **Fluidics system rinse**
  Automated post-sampling rinse for every sample. User definable extra rinse cycle and rinse frequency

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[www.agilent.com/chem/advanteon](http://www.agilent.com/chem/advanteon)

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This information is subject to change without notice.