The Attune NxT Flow Cytometer

Fluid conservation	
Less hazardous waste	
Lower energy consumption	
Less packaging	

We are helping researchers make a difference with our eco-friendly technology. The Invitrogen™ Attune™ NxT Flow Cytometer, for example, delivers on our commitment to sustainability by producing less hazardous waste than traditional flow cytometers.

Product description

The Attune NxT Flow Cytometer offers both high sensitivity and high throughput—without sacrificing performance or accuracy. The Attune NxT instrument:

- Utilizes up to 14 colors to reduce reagent usage by as much as 50%, compared to other cytometers that can only provide up to 5 colors
- Conserves fluids and generates less biohazard waste with a more effective fluidic system
- Helps efficiently produce meaningful data with a smaller amount of sample

The Attune NxT Flow Cytometer enables you to conduct experiments more responsibly, while generating less waste.

Fluid conservation

In conventional flow cytometers, increasing the sample flow rate allows faster data acquisition but lower resolution, and it requires large amounts of fluid. The Attune NxT Flow Cytometer is different due to the acoustic field in the hydrodynamic system, as it reduces the dependence on the fluid to push the cells into an aligned core stream. The Attune NxT Flow Cytometer conserves fluids with:

- **Novel acoustic focusing**—generates approximately 1.8 L of biological waste per day as compared to conventional instruments, which can generate up to 20 L of biological waste per day under standard protocol parameters
- **A volumetric system in combination with acoustic focusing**—reduces volumes of biohazardous materials and enables the ability to retrieve any unused sample
- **Adjustable flow rates of up to 1 mL per minute**—enables the running of dilute samples and the use of less starting material

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Green spotlight: reducing biohazardous waste with no-wash, no-lyse protocol

Acoustic focusing enables the use of no-wash, no-lyse methods, which eliminate centrifugation steps, thereby significantly reducing energy consumption requirements as compared to less efficient hydrodynamic focusing cytometers.

Designed for low energy consumption

Flow cytometers are often in high demand, with multiple users throughout the day. The lasers on the Attune NxT Flow Cytometer are only on during data acquisition, prolonging life expectancy and reducing energy consumption. At the end of the shutdown operation, the software automatically powers down the instrument and lasers. Benefits of the Attune NxT laser system include:

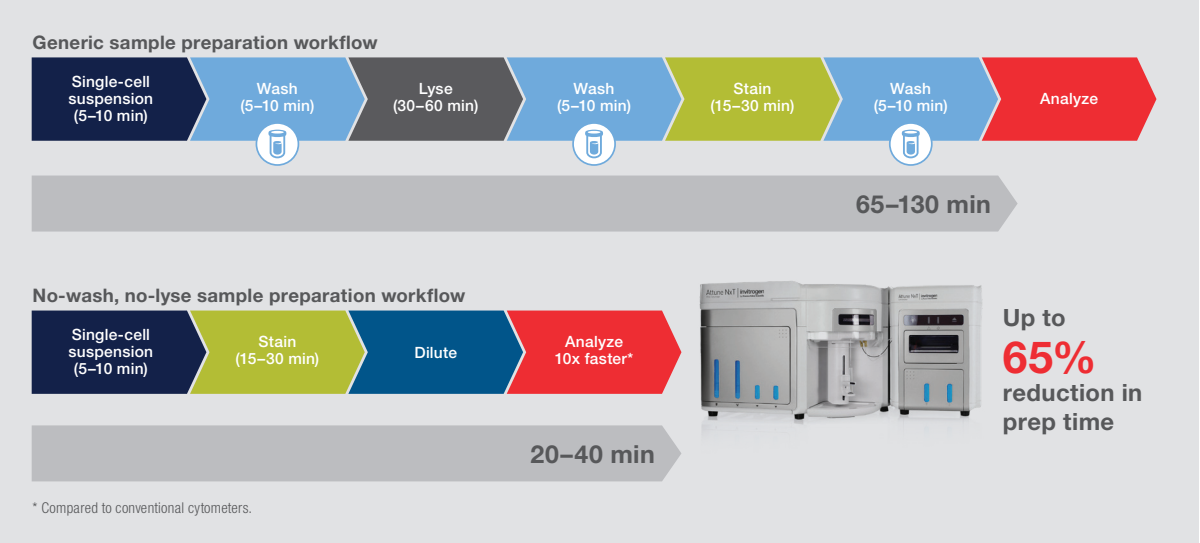
- Lasers have instant on/off “simmer mode”
- Lasers are only “on” when acquiring samples
- Use of less energy than a standard 60 W light bulb

Less packaging

The Attune NxT Flow Cytometer’s small size enables it to fit on a benchtop. This also results in a reduced amount of packaging material. Advantages include:

- Packaging uses 100% recycled boxes
- A smaller amount of sheath fluid is needed (only 1.8 L/day under standard run parameters)
- On-board fluidics do not require additional space such as a large fluidic cart, which some conventional flow cytometers require

From design to disposal, we innovate sustainable solutions to help laboratories make a smaller footprint. Let us help you perform impactful research while minimizing biological waste.



Find out more at **thermofisher.com/attune**

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