

Specification & Optical Configuration

BD LSR Fortessa

What is it?

Sensitive digital flow cytometer

What can it do?

- Flow cytometry analysis
Detect 20 parameters; 18 colors
5 excitation lasers
- 50mW 405nm violet
 - 50mW 488nm blue
 - 50mW 561nm yellow-green
 - 40mW 640nm red
 - 20mW 355nm UV

What can be run?

BSL I samples

Customization?

Interchangeable emission filters

Who can run this instrument?

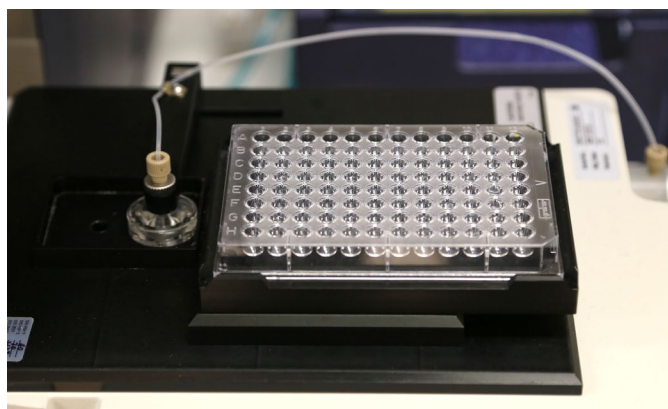
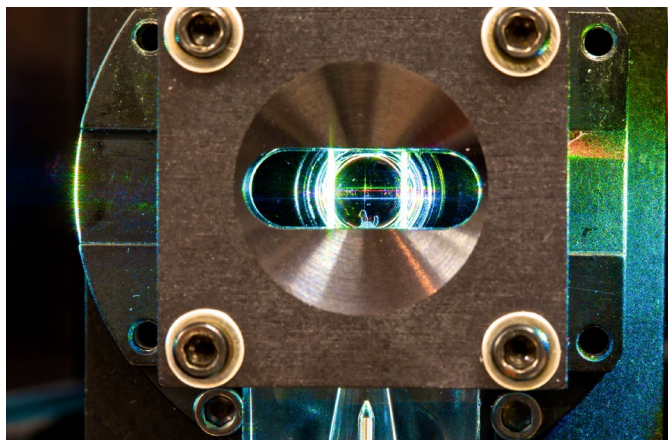
Technical assistance by facility staff
Trained users

How do I book this instrument?

LDI Core Booking Calendar

Where is it located?

Jewish General Hospital
3999 Cote-Ste-Catherine
LDI, Segal Cancer Center
Room E-417



The state-of-the-art BD LSR Fortessa is a 20-parameter flow cytometer capable of detecting 18 colors plus forward and side-scatter. Its gel-coupled cuvette allows for very accurate and sensitive measurements of fluorescence.

The 355nm and 405nm efficiently excites the new and very bright Brilliant Ultra-Violet (BUV) and Brilliant Violet (BV) fluorescent dyes. The 561nm laser can excite cells engineered to express red fluorescent reporter proteins such as RFP, dT Tomato, mCherry, mPlum and Katushka. In addition, this yellow-green laser efficiently excites all PE and PE tandems dyes making them brighter and with less spillover compensation compared to traditional blue laser excitation.

The LSR Fortessa is also customizable. Dichroic mirrors and emission filters onboard the LSR Fortessa can be easily removed and exchanged to detect non-conventional fluorophores. In addition, its dichroics and filters can readily be swapped between the LSR Fortessa and the FACSria Fusion; enhancing cross-platform experiment reproducibility.

It is also advised to troubleshoot an experimental panel on the LSR Fortessa prior to FACSria Fusion cell sorting.

BD LSR Fortessa Optical Configuration

Laser #	Excitation Lasers		Dichroic	Filter	Common Fluorochromes and Dyes	Filter Position
5	355nm	(UV)	N/A	379/28	BUV395, Indo-1 (bound)	C
5	355nm	(UV)	450 LP	515/30	BUV496, AF350, DAPI, Hoechst, BFP, Indo-1 (free)	B
5	355nm	(UV)	690 LP	740/35	BUV737	A
4	405nm	(Violet)	N/A	450/50	AF405, BFP, BV421, DAPI, Dye Cycle Violet, e450, Hoechst, V450	F
4	405nm	(Violet)	505LP	525/50	AmCyan, Aqua, BV510, CFP, e506, Qdot 525, V500, PacificOrange	E
4	405nm	(Violet)	595LP	610/20	BV605	D
4	405nm	(Violet)	630LP	660/20	BV650	C
4	405nm	(Violet)	690LP	710/50	BV711	B
4	405nm	(Violet)	750LP	780/60	BV786, Qdot 800	A
3	488 nm	(Blue)	505LP	530/30	AF488, BB515, CFSE, FITC, GFP, Sytox Green, YFP	B
3	488 nm	(Blue)	685LP	695/40	PerCP-Cy5-5, PerCP-e710	A
2	561nm	(Yellow-Green)	N/A	582/15	Cy3, dsRed, PE, RFP, tdTomato	E
2	561nm	(Yellow-Green)	600LP	610/20	AF568, mCherry, PE-CF594, PI	D
2	561nm	(Yellow-Green)	635LP	670/30	7AAD, Katushka, mPlum, PE-Cy5	C
2	561nm	(Yellow-Green)	750LP	780/60	PE-Cy7	A
1	640 nm	(Red)	N/A	670/14	AF647, APC, Cy5, SytoxRed	C
1	640 nm	(Red)	710LP	730/45	AF700, APC-R700, DyeCycleRuby	B
1	640 nm	(Red)	750LP	780/60	AF750, APC-Cy7, APC-H7	A