

Comparison of Capabilities of the LSR II and Vantage Flow Cytometers

The flow cytometers are available for use by prior appointment—contact Louis King 355-1536.

Capability	LSR II	Vantage
Cell Sorting	No – cell analysis only	Yes – low to high speed for eukaryotic cells up to 100 µm diameter. Technically possible for bacteria.
Cells analyzed	Must be in single cell suspension. Bacteria ¹ and eukaryotic up to 50µm diameter.	Must be in single cell suspension. Bacteria ¹ and eukaryotic up to 100µm diameter.
BD multiplex bead array	Yes	No
DIVA digital data acquisition	Yes	Yes
Cell Quest analog data acquisition	No	Yes
488 nm laser excitation	Yes	Yes
# of flr ² colors from 488	4–FITC, PE, PerCP-Cy5.5 ³ , PE-Cy7	4–FITC, PE, PerCP-Cy5.5 ³ , PE-Cy7
633 nm laser excitation/red	Yes	Yes
# of flr ² colors from 633	3-APC, APC-Cy7, 700nm flr	2-APC, APC-Cy7
407 nm laser (violet)	Yes	No
# of flr ² colors from 407	2–Am-Cyan(450nm), Pacific Orange (530nm)	
365 nm laser (uv)	No	Yes
# of flr ² colors from uv		2–DAPI(450nm), multiple choices available for 2 nd color ⁴
Total parameters	11	10

Footnotes

¹ Bacteria represent the lower limit of detection for both flow cytometers. Whether your bacterial application will work will have to be determined.

² Flr is an abbreviation for fluorescence.

³ Filter combinations at this detector can vary. Other fluorochromes which can be detected here are: PE-Texas red(rarely used), propidium iodide (630nm), MC540(660nm), PE-Cy5 (670nm). You can have only 1 at a time. Fluorescence conflicts from spectral overlap of these dyes in other detectors can affect the usefulness of the remaining detectors.

⁴ Protocols used on this machine have used 400 nm, 530 nm, or 670 nm fluorescence. The 450 nm fluorescence is usually associated with the DNA binding dyes DAPI or Hoechst.