



# 이원다이애그노믹스 FACS 장비

BD FACSLyric

---


## EONE-DIAGNOMICS Genome Center










- Administrator : 이 소 영
- Position : 신약연구소 연구개발2팀장
- E-mail : soyoung.lee@edgc.com

# BD FACSLyric

- 구매 장비 : BD FACSLyric
- 특징: 1) Auto Alignment (재현성)  
2) Low Carryover (오염방지)  
3) Improved Optic (높은 해상도)

## BD 유세포분석기



Analyzer			Sorter	
<b>High</b>	 BD FACSmphony A5	 BD FACSmphony A3	 BD LSRFortessa X-20	 BD FACSmphony S6
<b>Mid</b>	 BD FACSmphony A1	 BD FACSLyric	 BD FACSAria Fusion	
<b>Entry</b>	 BD Accuri C6 Plus		 BD FACSMelody	

# BD FACSLyric

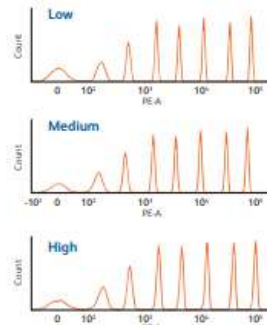
· 구매 장비 : BD FACSLyric



## A new diagnostic standard delivering outstanding performance

The BD FACSLyric is a high-performance, highly sensitive flow cytometer that demonstrates exceptional resolution and improved separation to make dim and rare populations easier to resolve.

- Runs at rates of up to 35,000 events per second, allowing acquisition of a large number of events rapidly; useful for rare populations
- There is no limit on events acquired
- Sample carryover  $\leq$  0.1% with the default sample injection tube (SIT) flush and as low as 0.05% up to 6 SIT flushes
- Outstanding resolution at all flow rates and enables faster detection without compromising quality (Figure 1)



Flow rate	$\mu$ L/min
Low	12
Medium	60
High	120

Figure 1. Flow rate

Improvement in stain index of 8–190% across all parameters, ensures better separation and enables faster analysis and easier gating. (Figure 2)

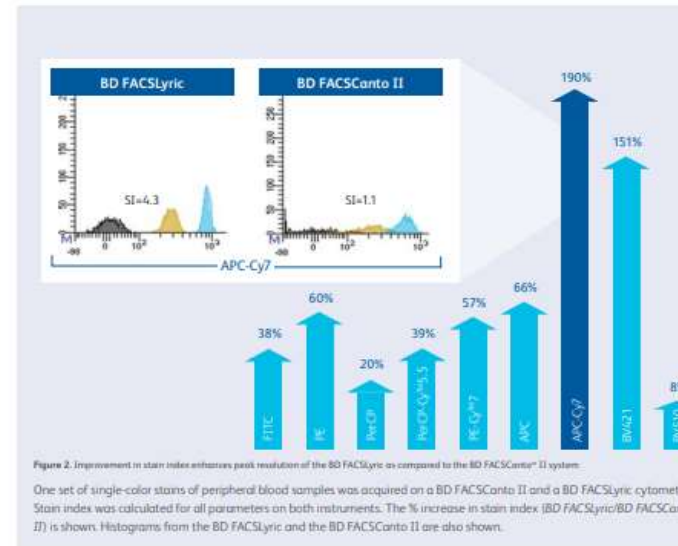
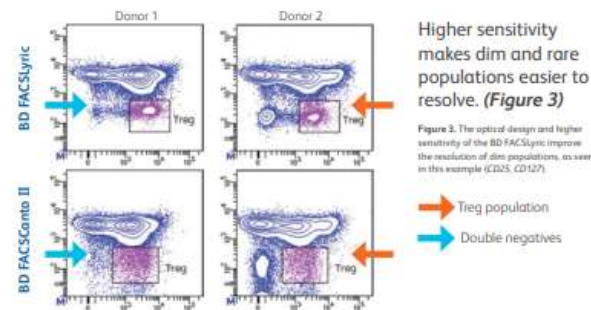


Figure 2. Improvement in stain index enhances peak resolution of the BD FACSLyric as compared to the BD FACSCanto<sup>®</sup> II system. One set of single-color stains of peripheral blood samples was acquired on a BD FACSCanto II and a BD FACSLyric cytometer. Stain index was calculated for all parameters on both instruments. The % increase in stain index (BD FACSLyric/BD FACSCanto II) is shown. Histograms from the BD FACSLyric and the BD FACSCanto II are also shown.



Higher sensitivity makes dim and rare populations easier to resolve. (Figure 3)

Figure 3. The optical design and higher sensitivity of the BD FACSLyric improve the resolution of dim populations, as seen in this example (CD25, CD127).

→ Treg population  
→ Double negatives

# BD FACSLyric



- 구매 부가 장비 : FACS Universal Loader
- 특징: 1) 30 – 40 FACS tube rack 또는 96 well을 자동으로 측정 가능  
2) 여러 sample을 자동으로 측정할 수 있기 때문에 효율적임

## Improving efficiency and productivity through flexibility and automation

Intelligent system design simplifies your laboratory workflow through built-in flexibility and automation thus enabling your technicians to be more productive.

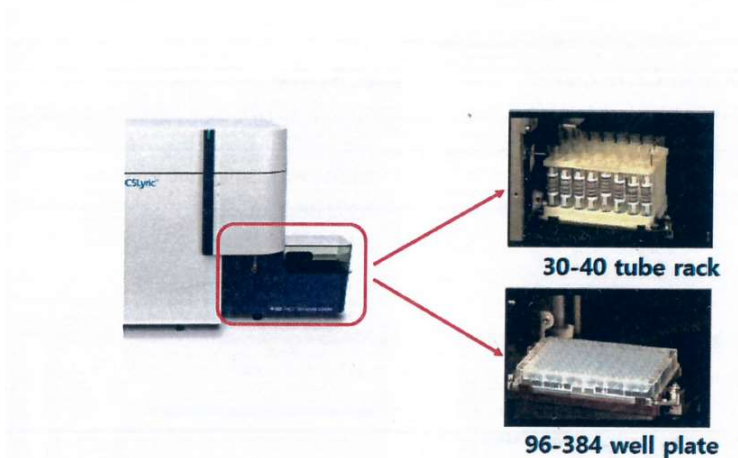
Spend zero minutes on startup and shutdown.

- Pre-programmable startup means instruments are ready to run the minute users walk in
- Automated shutdown and power off also contributes to maximizing instrument productivity

Automation streamlines your daily workflow, improving efficiency and productivity.



## FACSLyric – Universal Loader Option



A lab-friendly system, with a small footprint, quiet operation and BD FACS Universal Loader

- Automated loader can accommodate 30 or 40 tubes
- 21 different loading options to choose from between 96-well and 384-well plates
- Automated vortexing of tubes and plates for mixing and resuspending
- Automated sample tracking tubes and plates (barcode enabled)
- Compact instrument size 63.2 x 57.9 x 57.9 cm (24.9 x 22.8 x 22.8 in.) for smaller lab spaces
- Noise levels of ≤55 dBA for a quieter lab environment



Patented BD bead technologies enable data reproducibility

- Daily setup and performance checks using BD CS&T beads automatically adjust more than 70 instrument parameters ensuring stable instrument performance with CV of <0.5% (Figure 6)
- PMT voltages are automatically updated to maintain target MFI values as a part of QC
- Spillover values (SOVs) are automatically updated as part of daily QC
- Compensation only needs to be performed every 2 months

\*BD FC Beads are NIST certified, bringing flow cytometry one step closer to standardization.



"BD is positioned with CS&T and FC bead technology to enable instrument standardization simply from day to day, instrument to instrument, and lab to lab. Reference control based instrument standardization is the most important "next step" for clinical flow cytometry."

Lili Wang, NIST, Gaithersburg, MD

## 장비 사양 : 2 Laser 4-color

연구진들이 기본적으로 많이 사용하는 사양인 2 Laser 4-color 사양을 선택함으로써 기기 관리에 효율성을 높이고, 높은 재현성을 바탕으로 정확한 분석이 가능하도록 기기 상태를 최상의 퀄리티로 유지할 예정임.

FACSLyric - Configuration			SLB				
Dyes	Filters	Mirrors	2 Laser 4-color	2 Laser 6-color	3 Laser 8-color	3 Laser 10-color	3 Laser 12-color
<b>Blue Laser (488 nm)</b>							
SSC	488/15	none	✓	✓	✓	✓	✓
FITC	527/32	507 LP	✓	✓	✓	✓	✓
PE, PI	586/42	560 LP	✓	✓	✓	✓	✓
PerCP, PerCP-Cy™5.5	700/54	665 LP	✓	✓	✓	✓	✓
PE-Cy™7	783/56	752 LP	✓	✓	✓	✓	✓
<b>Red Laser (640 nm)</b>							
APC	660/10	660/10	✓	✓	✓	✓	✓
BD Horizon™ APC-R700	720/30	705 LP				✓	✓
APC-Cy™7, APC-H7	783/56	752 LP		✓	✓	✓	✓
<b>Violet Laser (405 nm)</b>							
BD Horizon™ V450, BD Horizon Brilliant™ Violet 421	448/45	448/45			✓	✓	✓
BD Horizon™ V500-C, BD Horizon Brilliant™ Violet 510	528/45	500 LP			✓	✓	✓
BD Horizon Brilliant™ Violet 605	606/36	606/36				✓	✓
BD Horizon Brilliant™ Violet 711	715/50	715/50					✓
BD Horizon Brilliant™ Violet 786	755 LP	755 LP					✓