Blizard Institute of Cell and Molecular Science

Tuesday, March 22, 2022

Flow Cytometry Core Facility



In this area :

- Instruments available
  - BD FACSAria sorter
  - BD LSRII analyser
  - ACEA Novocyte
  - BD FACS Canto II
  - Millipore Muse
  - BD FACScan analyser
  - LED Microscope
- Data analysis
- Flow cytometry
- Uses of flow cytometry
- Flow sorting
- Research projects
- Publications
- Posters
- Links
- Contacts
- News
- Free Reagent Shop

# Becton Dickinson FACScan Analyser

| Specification | Comments |
|---|---|
| *Performance* | |
| Fluorescence sensitivity | <2,000 molecules of equivalent soluble fluoroscein |
| Fluorescence resolution | < 3% for PI labelled chick erythrocyte nuclei |
| Forward and side scatter sensitivity | Sensitivity enables the separation of fixed platelets from noise |
| Forward and side scatter resolution | 5,000 events/sec |
| *Excitation optics* | |
| Optical platform | Fixed optical assembly, |
| Lasers | 20mW Coherent 488nm, air cooled, argon ion laser FITC (530/30nm); PE (575/26nm), PerCP, or PE-Cy5,or PE-Cy5-5 or PE-Cy7 (650nmLP) |
| *Emission optics* | |
| Optical Coupling | Quartz cuvette is coupled to emission lens by refractive index-matching optical gel for optimum collection efficiency |
| Fluorescence Detectors | 3 PMTs |
| Three fluorescence detectors | High performance, high dynamic range photomultipliers with filters for FITC, PE and PE-Cy5 or PE-Cy7 |
| *Signal processing* | |
| Workstation resolution | Four decades for peak detection, |
| Data acquisition channels | Five acquisition channels |
| Dynamic range | 12-bit data acquisition 1,024linear channels displayed in a 4-decade logarithmic display |
| Pulse processing | Not available |
| Time | Time available correlated to any parameter |
| Analogue Compensation | Electronics provides analogue correction of spectral overlap |
| *Data management* | |


Uses of flow cytometry:

- Multi colour analysis
- Viability
- Cell cycle analysis
- Fluorescent proteins
- Flow FISH
- Apoptosis
- Autophagy
- Necroptosis
- Oncosis
- Necrosis
- Functional analysis
- Rare event analysis
- Translocation
- FRET
- Bacteria
- CBA
- FlowCytoMix
- Insects
- Neurons
- NADH
- PrimeFlow RNA
- Smartflare kits
- Muse kits
- Exosomes

| | |
|---|---|
| Central processing | Intel processor |
| CellQuest Pro II | Apple Mac G5 computer with OSX operating system |
| Monitor | 15-inch LCD monitors |
| Data File Structure | Flow Cytometry Standard 2.0 |

Top



Institute of Cell and Molecular Science, The Blizard Building, Barts and The London School of Medicine and Dentistry, 4 Newark Street, London E1 2AT, UK
Tel: +44 (0)20 7882 2483, Fax: +44 (0)20 7882 2200