Questionnaire

Customer appointment preparation

Appointment preparation

1. Survey

Topic	Customer's answer	Example
Research Area		Oncology, Cell & Gene Therapy…
Application		Cell count (CC), Viability (Via), Kinetics, Extinction…
Cell type		HEK293, HeLa, CHO, Sf-9…
Cell size		3-80 µm (CC), 8-80 µm (Via)
Cell concentration		$1x10^4$ - $1x10^7$ cells/ml
Assay for spectrometer		Bradford, OD_{600}, colorimetric, turbidimetric…
Wavelength		375 - 700 nm
Testing period needed		1 - 2 weeks
Questions?		-

2. Sample preparation

1. Cell count & Viability measurements

- Freshly prepared cells
  - Concentration in the given range ($1x10^4$ - $1x10^7$ cells/ml), optimally $5x10^5$ cells/ml
  - Resuspend well before measuring
- Neubauer chamber + trypan blue (TB) for comparison of results
  (1:1 dilution of sample with TB - 3 minutes incubation time)
- Sample volume to be used with each sample carrier:
  - Acella 20: 5 µl
  - Acella 50: 12 µl
  - Acella 100: 22 µl

2. Spectrometer

- Cuvettes
  - Standard or semi-micro (Quartz, plastic)
- Solution prepared
  - Bacteria, colorimetric or turbidimetric assays
- Calibration Curve
  - Preparation of different concentrations/dilutions
- Kinetics
  - Environment prepared for different conditions or settings (e.g. CO_2/O_2 - chamber)

3. Checklist for customer appointments

- Charged fluidlab R-300 with clean sensor
- Power supply unit
- Laptop
- Fluidlab connected to datalab on the laptop
- Box 1: Acella 100
- Box 2: Acella 50 & 20 (for special cases)
- Sensor swaps
- Adapter key
- Adapters: 01, 02 and 03
- “When to use which acella” (document)
- “Performed measurements” (document)
- “Troubleshooting protocol” (document)