flowkon Flow Cytometry User Instructions at the University of Konstanz

FACSFortessa[™] – HTS User Instructions

The BD[™] High Throughput Sampler (HTS) option for the BD LSRFortessa[™] cell analyzer provides rapid, fully automated sample acquisition from microtiter plates. In high-throughput mode, the HTS can process a 96-well plate in fewer than 15 minutes. Standard throughput mode can be selected for acquisition of larger sample volumes.

Preparing the HTS

- ☑ Switch the acquisition control to plate mode.
 This will switch off the DCM pump.
- ☑ Unscrew the tube retainer (grey ring) that holds the DCM sleeve onto the SIT and carefully remove the sleeve.
- ☑ Remove the DCM sleeve and replace it with the shorter SIT protector.
- $\ensuremath{\boxtimes}$ Install the sample coupler on the SIT.
- \square Check the level in the connected water bottle (> ~30 mL).
- \square Switch on the HTS reader (on the backside).
- ☑ Press the Run button (the HTS does not operate in STNDBY mode).

Initialisation and Priming the HTS

Note: Don't change PMTV of fluorescence channels after enabling compensation.

- ☑ Operation of the loader is only possible via DIVA software do not use the prime button on the instrument.
- \square When the BD DIVA software is already open, go HTS \rightarrow Re-Initialize.
- ✓ Start BD DIVA software. The HTS will initialize automatically, otherwise go to HTS
 → Re-Initialize
- ☑ Prime the HTS (Sheath tubing connected): HTS \rightarrow Prime. 3x in total.

Run your Experiment

See detailed instructions on HTS Programming.



Cleaning Procedure after Measurement

- ☑ Include 3x4 wells for cleaning solutions on your plate (F9-F12, G9-G12, H9-H12)
 OR use a separate plate for the cleaning procedure.
- \square Fill 250 µL FACSClean in 4 wells, F9-F12.
- \square Fill 250 µL FACSRinse in 4 wells, G9-G12.
- \square Fill 250 µL MQ H₂O in 4 wells, H9-H12.

Shutting Down the System

Return to Tube-based acquisition mode:

- ☑ STNDBY mode.
- $\ensuremath{\boxtimes}$ Switch off HTS.
- \blacksquare Remove the sample coupler from the SIT and re-install the standard DCM sleeve.
- ☑ Switch to Tube mode. 🦉
- \square Prime 3x with arm at side.
- ☑ Install MQ-water tube, close aspirator arm.
- ☑ Close open experiments, close the DIVA software, turn off instrument, fluidic cart and PC.
- ☑ Provide information about your measurement in the LogBook.