Job Aid

BD FACSDiscover™ A8 Cell Analyzer: Running samples with the loader

This job aid contains instructions for how to set up and run samples for imaging and high-speed experiments in BD FACSChorus™ Software using the integrated loader. For additional information, see the *BD FACSDiscover™ A8 Cell Analyzer with BD CellView™ and BD SpectralFX™ Technology user's guide*.

Start up system → Set up experiment → Establish settings → **Record and Analyze** → Manage data → Shut down system

Before you begin

- Start up the system and run a daily or extended fluidics startup procedure.
- For an imaging experiment, create and design an experiment, adjust your scatter and spectral gains, and set the Region of Analysis (ROA) for your sample.
- For a high-speed experiment, create and design an experiment, and adjust your scatter and spectral gains for your sample.
- Record the single-stain controls for your experiment.

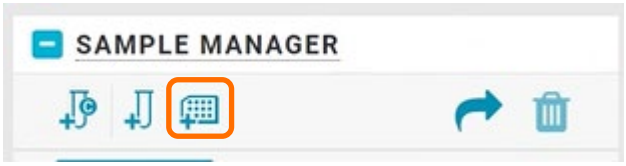
Working with the Sample Manager

The Sample Manager panel on the View Data page allows you to view, add, edit, or delete a multi-well plate or a tube rack. After adding a carrier type from the Sample Manager panel, use it to acquire and record data for the samples loaded on the carrier.

Adding a tube rack or multi-well plate

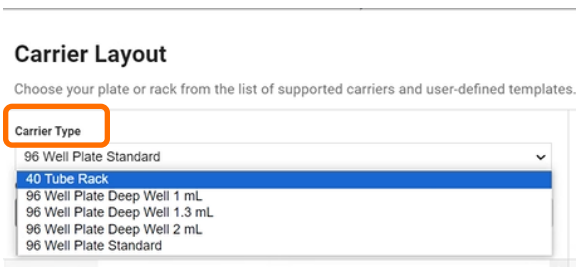
1. Click the **View Data** tab.

2. In the Sample Manager panel, click **Add plate/tube rack.**

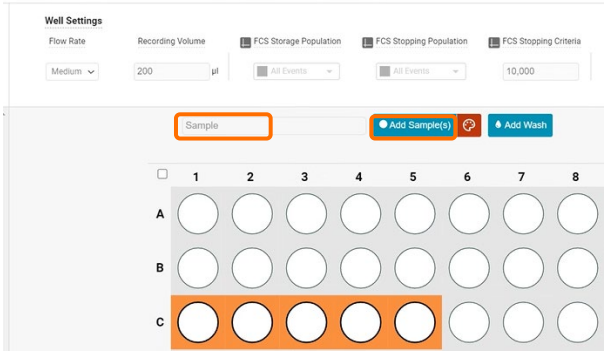


3. Select the Carrier Type from the dropdown list.

4. (Optional) Enter a name for the carrier.



Adding samples to a multi-well plate or tube-rack

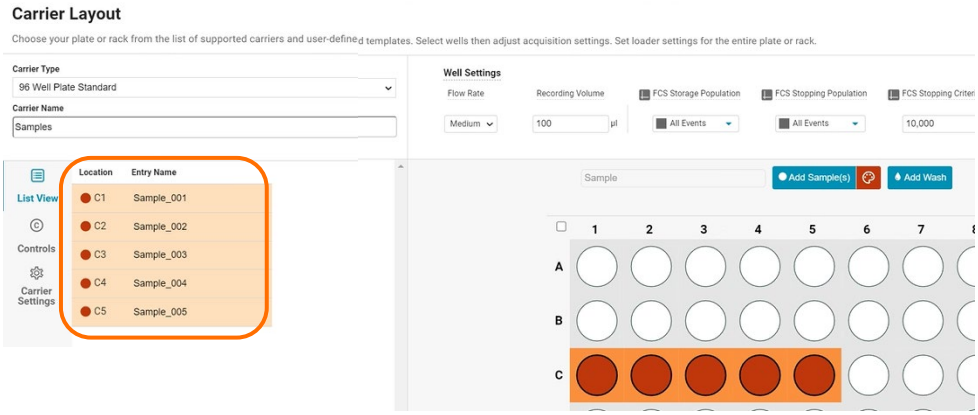


NOTE The images in the following steps are of a multi-well plate. If using a tube rack, the steps remain the same, but instead of a well, use a tube location.

1. Click to select one or more wells and click **Add Sample(s)**.

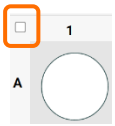
   TIP To batch name your samples, before you click the **Add Samples** button, enter a name in the textbox to the left of the button.

   The position will change colors, and the sample(s) will be added to the List View.

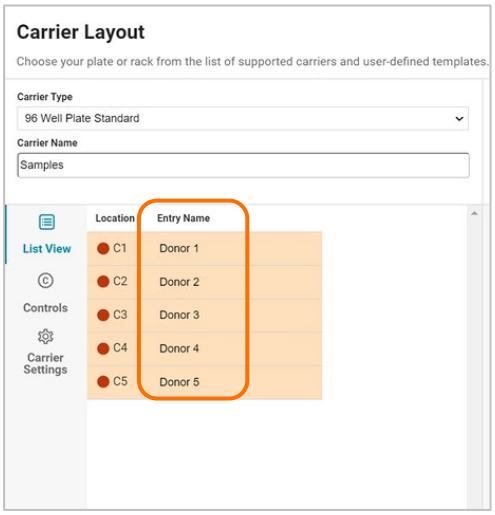


TIPS for selecting wells:

- Select a well to see the sample added to the List View.
- To select multiple contiguous wells, drag the mouse to select the wells.
- To select multiple, separately located contiguous wells, press Ctrl on the keyboard and drag the mouse to select them.
- To select all the wells in the multi-well plate, click the **Toggle Selection** checkbox.

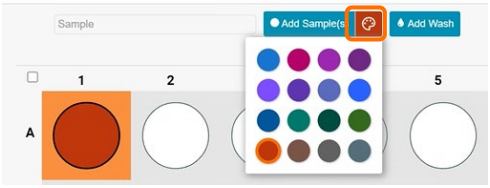


2. (Optional) Change the sample name under the Entry Name column as needed.



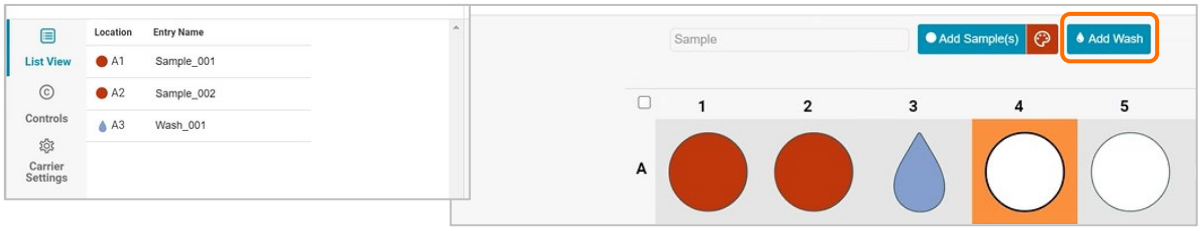
Adding samples to a multi-well plate or tube-rack, continued

TIP To change the color of the sample in the well, click the **Color palette** icon.

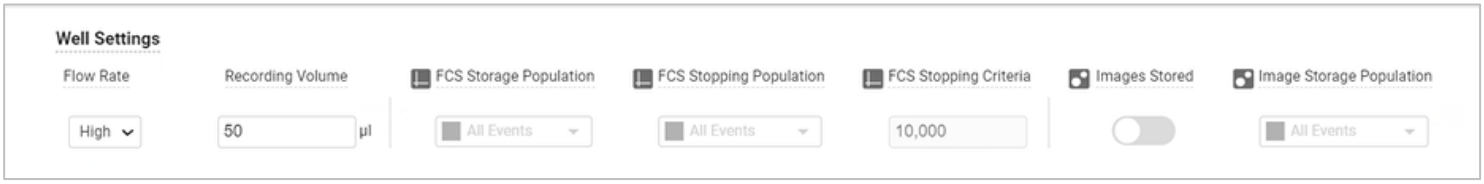


TIP To add a wash to an empty location, click to select one or more empty wells and click the **Add Wash** icon.

NOTE If using the tube rack, enter 2,000 uL to avoid getting an empty tube error message.

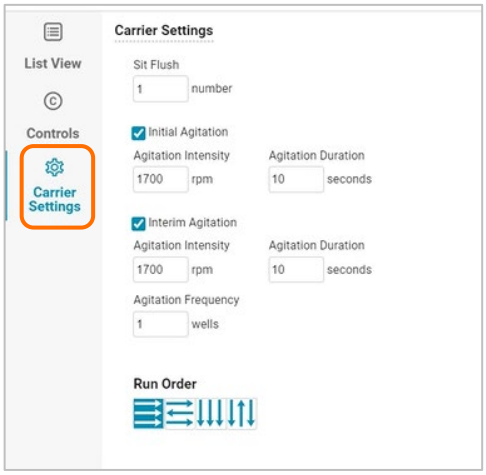


Customizing the Well and Carrier Settings

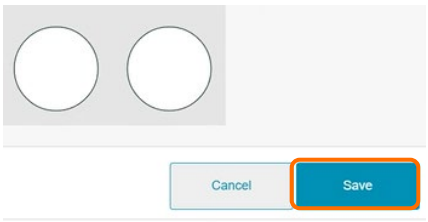


1. Set the flow rate, recording volume, FCS Storage and stopping criteria as needed.

   TIP To apply the same well settings to multiple wells, make sure all of the wells are selected before customizing the settings.



2. Click **Carrier Settings**.
   - Select the number of SIT flushes (1–3) to run during acquisition.
   - Set the agitation intensity, duration, interim agitation, interim agitation parameters, and frequency.
   - Select the direction of the run order.

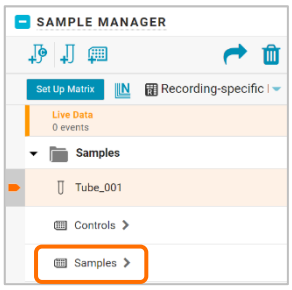


3. Click **Save**.

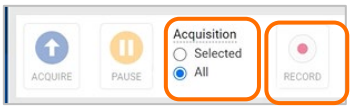
Running a sample with the loader

1. Load the plate or rack.
   a. Install a DI water tube on the SIT.
   b. Click **OPEN DOOR**.
   c. Place the multi-well plate or tube rack in the loader nest with the A1 location in the upper left corner.
   d. Click **CLOSE DOOR**.

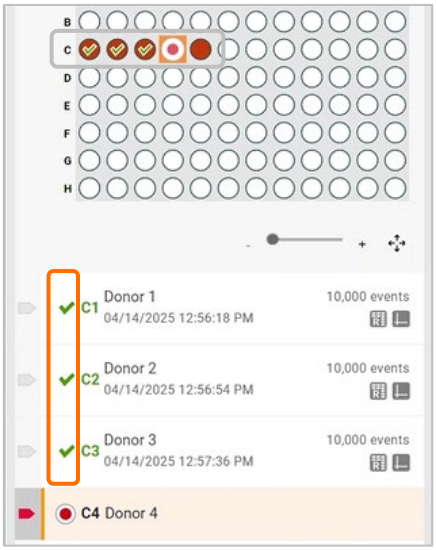
2. Click the plate/rack icon to see the expanded view.



3. Select **All** for the Acquisition type to record the samples sequentially.
4. Click **Record**.



After the recording is completed, a green checkmark is displayed in the sample tube location and for the sample in the list below the overview panel.



5. After all of the samples have been recorded, remove the plate or tube rack from the loader nest.

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