

iCycler iQ™ Quick Guide

Plate Setup

in Library and Workshop Modules

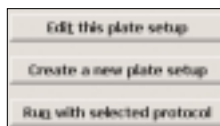
Viewing Plate Setup

1. Click on the **View Plate Setup** tab in the **Library** module to view saved plate setup files.
2. Click on the desired plate setup under **Plate Setup Files**.
3. Click the **View Quantities/Identifiers** tab to view sample types, quantities, and identifiers (sample names) for wells in each dye layer.
4. Click **Run with selected protocol** to initiate a run with the selected plate setup and indicated protocol.

Editing and Creating a Plate Setup

1. Begin editing and creating a plate setup in the **Workshop** module in one of the following ways:

- Click **Edit this plate setup** in the **View Plate Setup** tab in the **Library** module
- Click **Create a new plate setup** in the **View Plate Setup** tab in the **Library** module
- Click the **Workshop** module button and on the **Edit Plate Setup** tab



2. Select **Whole Plate** mode or **Per Dye Layer** mode

- **Whole Plate** mode — Each well contains the same sample type and replicate number in all dye layers
- **Per Dye Layer** mode — Wells may contain different sample types and replicate numbers in each dye layer

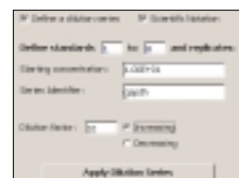
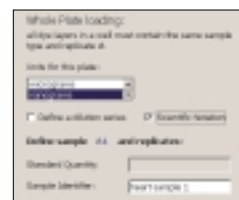
Whole Plate Mode

1. Click on an icon for the sample type.
2. Select wells for sample and replicates.



3. You may type the name of the sample in the **Sample Identifier** box and press Enter to update information.
4. To define standards, click on the **Standard** icon

- Use the cursor to select wells on the plate for each standard and its replicates
- Select units
- Check the **Define a dilution series** box, and enter **Starting concentration** and **Series Identifier**
- Enter a number for **Dilution factor** and select **Increasing** or **Decreasing**
- Click on **Apply Dilution Series**
- Alternatively, define standards individually by entering number in **Standard Quantity** and name in **Sample Identifier** for each standard and its replicates



5. With the **Cursor** icon selected, click on any well to view **Sample, Identifier, Quantity, and Units** for that well.
6. When finished loading samples, click on **Select and load fluorophores**
 - Select (or deselect) a fluorophore from the list
 - Assign a color to the fluorophore
 - Repeat this for each fluorophore in this plate setup
 - Click on the selected fluorophore crayon and load fluorophore by clicking on wells
 - Repeat this for each fluorophore in this plate setup
 - Click the top corner to select all 96 wells at once
 - Click on a number or letter to select an entire column or row, respectively
 - Drag across wells to specify the same fluorophore in multiple contiguous wells
 - If you make a mistake, use the Erase icon. You can erase the settings in all wells at once by clicking in the top left corner of the plate
7. Name the file in the **Plate Setup Filename** box and click **Save this plate setup**.
8. Click **Run with selected protocol** to initiate a run with the selected plate setup and indicated protocol.

Per Dye Layer Mode

1. Select the **Per Dye Layer** option.

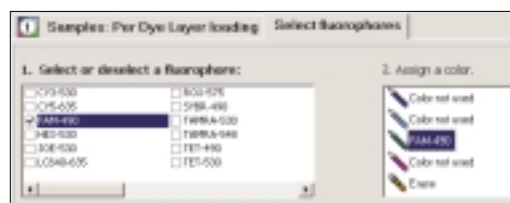


2. Under the **Select fluorophores** tab, select a fluorophore checkbox to choose the dye layer to begin loading the plate setup.

3. Assign a color to the fluorophore.

4. Repeat this to define all fluorophores for this plate setup.

5. Click on **Samples: Per Dye Layer loading** tab to define samples on the plate.

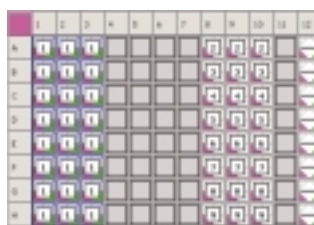


6. Choose units for the selected dye layer.

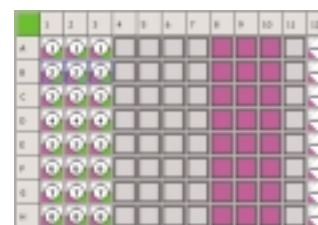
7. Click on an icon for the sample type and click on wells to load the plate.

8. Define standards as described above in Whole Plate Mode.

9. Select other fluorophore checkboxes to define wells for another dye layer.



Texas Red dye layer: This plate setup is the Texas Red dye layer displaying unknown sample 1 in columns 1–3, unknown samples 2–9 in columns 8–10, and negative control in column 12.



FAM dye layer: This plate setup is the FAM dye layer displaying standard samples 1–8 in columns 1–3 and negative control in column 12. Columns 8–10 are not defined in this dye layer.

10. Select the **Cursor** icon and click on any well to view all dye layer information for that well.

Sample	Identifier	Quantity	Units
Unknown 1	1	1000	µL
Unknown 2	2	1000	µL
Unknown 3	3	1000	µL
Unknown 4	4	1000	µL
Unknown 5	5	1000	µL
Unknown 6	6	1000	µL
Unknown 7	7	1000	µL
Unknown 8	8	1000	µL
Unknown 9	9	1000	µL
Unknown 10	10	1000	µL
Unknown 11	11	1000	µL
Unknown 12	12	1000	µL

11. Name the file in the **Plate Setup Filename** box and click **Save this plate setup**.

12. Click **Run with selected protocol** for the experimental run.

13. You may also click on the **View Quantities/Identifiers** tab of the **Workshop** module for an overview of plate layout by dye layer.

