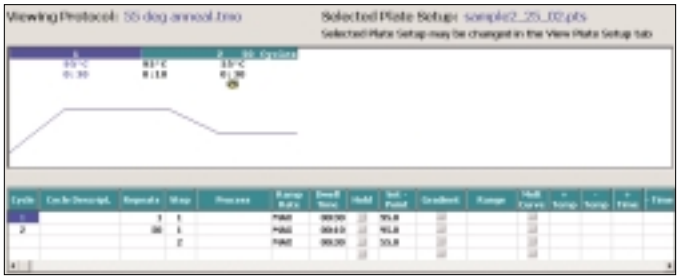
iCycler iQ™ Quick Guide
Protocol
in Library and Workshop Modules

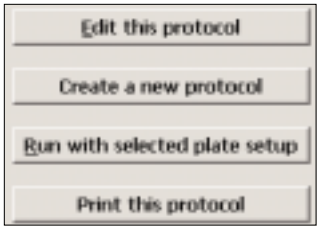
View Protocol

1. Click on the **View Protocol** tab in the **Library** module to view saved protocols.
2. Click on desired protocol under **Protocol Files** to display the selected protocol.
3. Click **Run with selected plate setup** to use this protocol and plate setup for an experimental run.
4. Click **Print this protocol** to print the protocol.



Editing and Creating a Protocol

1. Begin editing and creating a protocol in the **Workshop** module in any one of the following ways:
   - Click **Edit this protocol** in the **View Protocol** tab in the **Library** module
   - Click **Create a new protocol** in the **View Protocol** tab in the **Library** module
   - Click on the **Workshop** module, then select the **Edit Protocol** tab



2. Click on **Insert Cycle**, **Delete Cycle**, **Insert Step**, and **Delete Step** to edit the default or selected protocol.
3. This option stays active until you indicate that you're done inserting/deleting. Deselect the option when completed.
4. Click in the spreadsheet on the **Cycle** or **Step** cell, then enter values for **Dwell Time** and **Setpoint** temperature.

Cycle	Repeats	Step	Dwell Time	Setpoint	Gradient	Range
1	1	1	03:00	95.0		
2	50	1	00:10	95.0		
		2	00:30	55.0	✓	10.0

5. Select protocol options in the **Show Options** box to display in the protocol spreadsheet, such as **Gradient** or **Melt Curve**, and enter information (see other side for more information).

6. Select data collection step(s) by double-clicking on the step designated for **REAL-TIME** data collection.
7. Enter a name in the **Protocol Filename** box and click **Save this protocol**.
8. Click **Run with selected plate setup** to run this protocol and selected plate setup.

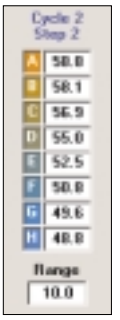
BIO-RAD

Creating a Gradient Protocol

1. Check the box for **Gradient** in the **Show Options** box. This will expand the protocol spreadsheet to include gradient columns.
2. In the protocol spreadsheet, click the **Gradient** checkbox at the step you want to begin the temperature gradient.
3. In the protocol spreadsheet, type in the **Setpoint** temperature (coolest temperature) and the temperature **Range** for the thermal gradient. The default range is 10°C.

Cycle	Repeats	Step	Dwell Time	Setpoint	Gradient	Range
1	1	1	03:00	95.0	☐	
2	50	1	00:10	95.0	☐	
		2	00:30	55.0	☑	10.0
					☐	

4. Alternatively, you may type in a temperature in a selected row in the gradient display box and a temperature **Range**, and the **Setpoint** temperature will be updated in the spreadsheet.

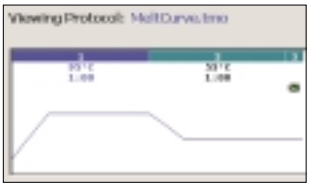


5. Enter a name in the **Protocol Filename** box and click **Save this protocol**.

Cycle	Repeats	Step	Dwell Time	Hold	Setpoint	Gradient	Range
1	1	1	03:00	☐	95.0	☐	
2	50	1	00:10	☐	95.0	☐	
		2	00:30	☐	48.8	☑	10.0
3	1	1		☑	25.0	☐	

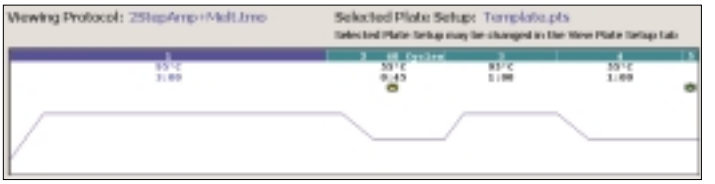
Creating a Melt-Curve Protocol

1. Click **View Protocol** in the **Library** module to view saved protocols.
2. Under **Protocol Files**, select one of the following:
   - **MeltCurve.tmo** for a melt-curve protocol only



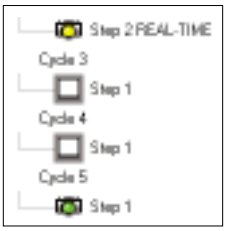
Cycle	Repeats	Step	Dwell Time	Setpoint	Melt Curve	+ Temp	- Temp
1	1	1	01:00	95.0	☐		
2	1	1	01:00	55.0	☐		
3	80	1	00:10	55.0	☑	0.5	

   - **2StepAmp+Melt.tmo** for an amplification and melt-curve protocol



Cycle	Repeats	Step	Dwell Time	Setpoint	Melt Curve	+ Temp	- Temp
1	1	1	03:00	95.0	☐		
2	40	1	00:10	95.0	☐		
		2	00:45	55.0	☐		
3	1	1	01:00	95.0	☐		
4	1	1	01:00	55.0	☐		
5	80	1	00:10	55.0	☑		0.5

3. To edit the protocol, click **Edit this protocol** to get to the **Workshop** module.
4. Click on the appropriate cell to change values for any parameter, such as **Dwell Time** and **Setpoint** temperature. You may do this to change the annealing temperature or melt-curve starting temperature.
5. Data collection for the melt-curve step is automatically indicated with a green camera.



6. Enter a name in the **Protocol Filename** box and click **Save this protocol**.