

# iCycler iQ™ Quick Guide

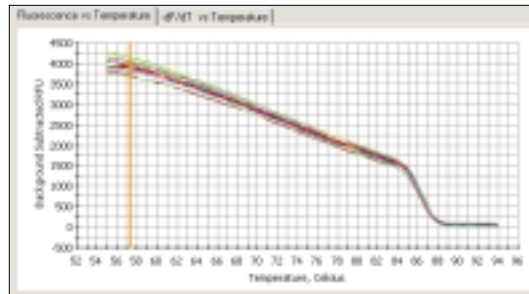
## Data Analysis

### Melt Curve

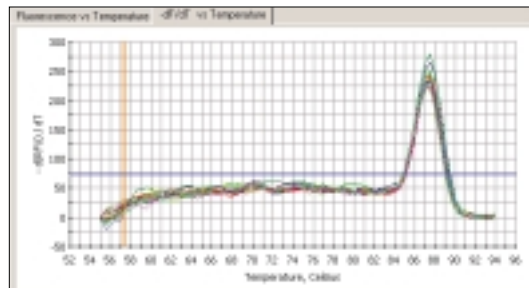
The **Melt Curve** feature of the **Data Analysis** module is displayed during the melt-curve run and presents the data as they are being collected in real time. This screen is also enabled when you open a data file containing melt-curve data.

1. Click on the **View Post-Run Data** tab in the **Library** module.
2. Select a data file and click the **Analyze Data** button under **Data Analysis Operations**. The file will open in the **Melt Curve** tab of the **Data Analysis** module.
3. If the data file also contains PCR data, the file will open in the **PCR Quantification** tab of the **Data Analysis** module. Click on the **Melt Curve** tab.
4. Data are displayed as **Fluorescence vs Temperature** or **-dF/dT vs Temperature**

- **Fluorescence vs Temperature** plots fluorescent data in real time as temperature increases or decreases



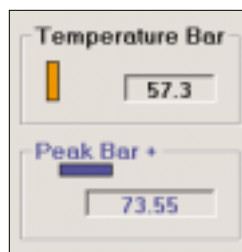
- **-dF/dT vs Temperature** displays the negative first derivative of the **Fluorescence vs Temperature** plot. The software identifies peaks and assigns melting temperatures from this plot



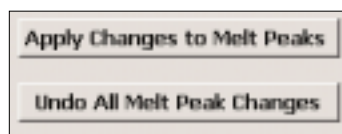
5. Peaks from the **-dF/dT vs Temperature** plot are identified and displayed in the **Peak Description** spreadsheet with **Identifier**, **Peak ID**, **Melt Temp.**, **Peak Descriptor**, **Begin Temp.**, and **End Temp.** for each sample.

	Identifier	Peak ID	Melt Temp.	Peak Descriptor	Begin Temp.	End Temp.
C3	IL1-beta	C3.1	87.5		83.0	91.5
C4	IL1-beta	C4.1	87.5		82.5	91.5
C5	IL1-beta	C5.1	87.5		83.0	92.5
C6	IL1-beta	C6.1	87.5		83.5	91.5
C7	IL1-beta	C7.1	87.0		84.0	93.0
C8	IL1-beta	C8.1	87.5		82.0	91.5
D3	IL1-beta	D3.1	87.5		84.0	92.5
D4	IL1-beta	D4.1	87.5		84.0	94.0
D5	IL1-beta	D5.1	87.5		84.0	94.0
D6	IL1-beta	D6.1	87.5		83.5	92.0

6. The number of peaks displayed is dependent on the location of the blue peak bar. Only peaks above this bar are displayed in the spreadsheet.
7. Click and drag the blue peak bar to move it to a new location, for example, above the background noise. The exact positions of the temperature and peak bars are displayed in a box to the right of the plot.

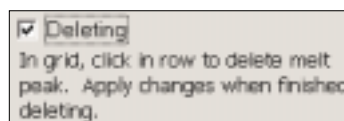


8. Click **Apply Changes to Melt Peaks** to update the data spreadsheet. To undo, click **Undo All Melt Peak Changes**.



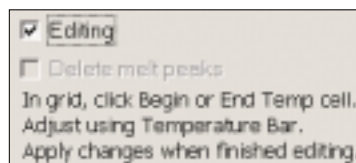
9. The delete feature may be used to delete individual peaks. Check the **Delete melt peaks** box

- Click in the row to delete peaks. This may be done only for wells with more than one peak
- Click **Apply Changes to Melt Peaks** when you are finished deleting
- Deselect the **Delete melt peaks** box when changes are complete



10. To edit the beginning and ending temperature of a peak, check the **Edit melt peak begin/end temps** box

- Click the **Begin Temp.** or **End Temp.** column in the data spreadsheet
- Click and drag the vertical orange temperature bar to the desired temperature on the plot
- Click **Apply Changes to Melt Peaks** to update **Begin Temp.** or **End Temp.** in the data spreadsheet
- Deselect the **Edit melt peak begin/end temps** box when changes are complete



11. Click **Reports** to obtain customized reports for the melt-curve data.