96-Well Plate Compatibility

The 96-well microtiter plate has become ubiquitous in molecular biology sample preparation. For easy compatibility, the Q tubes and software have been developed to ensure that samples can be easily transferred from a 96-well plate. Notably, the sample setup within the 96-well plate will affect the distribution of samples upon transfer to the Q instrument. The following guide outlines how to easily run an experiment from a 96-well plate with samples originally distributed either along the rows or down the columns.

Samples loaded down columns (single tip pipette)

The samples from one half of a 96-well plate can be transferred to one rack of Q tubes. The racks of Q tubes are labelled with an alphanumeric display to ensure your samples are in the correct location (the display for both the left-hand side (A1:H6) and right-hand side (A7:H12) is indicated on the Q tube racks, with only the A1:H6 display shown here).

Note that the Q tubes are connected in strips of 4, as indicated by the dotted blue lines.
Once loaded, placing the Q tubes in the Q rotor starting with tube A1 at position 1 will give the following distribution. Note that you do not need to know where each sample is being placed within the rotor; our software does that for you.

Simply clicking on the alphanumeric display (A1..H6) and ‘samples by column’ icons will allow you to enter your samples as they appeared in the original 96-well plate. Note that the second alphanumeric display icon (A7..H12) will display the values for the right hand side of a 96-well plate. Simply enter the sample names as they appeared in the columns of the original 96-well plate, entering each column as a continuous list. Sample names can also be copied and pasted from excel.
Samples loaded across rows (multichannel pipette transfer)

Samples may also be transferred from a 96-well plate to the Q tubes with an 8-channel pipette. Note that only 6 tips should be loaded to the 8-channel pipette, leaving two empty positions. This is because the Q tubes are spatially compatible with the 96-well plate and 8-channel pipette in only one orientation.

The tubes are spatially compatible with an 8-channel pipette across the rows, but not down the columns.
Once loaded, placing the Q tubes in the rotor starting with tube A1 at position 1 will give the following distribution. As above, you do not need to know where each sample is being placed within the rotor as our software does that for you.

Simply clicking on the alphanumeric display (A7..H12) and ‘samples by row’ icons will allow you to enter your samples as they appeared in the original 96-well plate. The software will redistribute the cells for sample name entry as indicated by the blue arrows. Once you complete the samples from the first row, enter the samples from the subsequent row as a continuous list. It is also possible to copy and paste the sample names from an excel file. First, select the samples for that row, copy and transpose them to create a vertical list, then copy and paste into the Q-qPCR software.