



Tecan LT4500 Plate Reader Instructions

This plate reader is for absorbance readings only. Wavelengths available: 405, 450, 492, 570, 595 and 620nm. The plate reader is located in 3.47 [Bench EC1].

To use this equipment you must first speak with Kirsten Wilson, who will make the booking on your behalf (charged at £32 per hour). There is an additional charge if you would like to use our assay analysis software (training required, please enquire).

The plate reader reads from the bottom of the plate – plates must have a clear bottom to be used with this plate reader. Chimney plates and black/white sided-well plates can be used, but ensure the plate setting is changed to account for this.

Please log into your computer account before starting – if this is your first time logging into the computer, logging in may take several minutes.

1. Turn on the plate reader with the switch at the back left (towards the wall). The light will flash green when the reader is ready.
2. Open the plate reader software – search for ‘Magellan’, or find this under the ‘TECAN’ menu. You can pin the software to the start bar for ease of finding in the future. Once the software is ready, the light on the reader will turn solid green.
3. Open the plate reader and put the plate in, with column 1 to the top of the slot.
4. Select ‘Start Measurement’ and click the green arrow.
5. Select ‘Obtain Raw Data’ and click the green arrow.
6. Choose your settings – if plate type is chimney or solid-sided, select this, otherwise don’t change the plate type. You can select part of the plate if only part of the plate has been used. Shaking can be added, drag this module from the left side of the screen, ensuring it is sitting above the absorbance module on the main screen. Select the required wavelength, a reference wavelength can also be added and the subtraction will be automatically carried out by the software. Click the green arrow.
7. The next screen summarises the setting selection, ensure this is correct and click the green arrow to start the measurement(s).
8. The data will appear on a blue/grey screen as the plate is being read. Allow reading to complete before clicking on any part of the screen. The readings will flash up on a new screen when complete.
9. Select the ‘Edit’ drop-down menu, and ‘Export to Excel’. Excel will open the data, with the reading for each well in an individual cell (Excel may take a few minutes to open). The Excel file can then be saved to your account.
10. Remove the plate from the reader. Click the green arrow, and save the raw data with the format ‘DDMMYY USERINITIALS ANALYTEMEASURED (optional: plate# if more than one plate is being read)’. Should you lose the excel sheet of the data, this will allow easy finding of the raw reading. After saving, click ‘Finish’ and ‘Exit’ the software. Once the software is closed, turn off the plate reader.