

Jul 24, 2024

BAF_S05_Plate Reader SpectraMax iD3

DOI

<https://dx.doi.org/10.17504/protocols.io.eq2lyweepvx9/v1>

Nicholas Sherman¹

¹University of Virginia Biomolecular Analysis Facility Core



Nicholas Sherman

University of Virginia Biomolecular Analysis Facility Core

Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.eq2lyweepvx9/v1>

Protocol Citation: Nicholas Sherman 2024. BAF_S05_Plate Reader SpectraMax iD3. protocols.io
<https://dx.doi.org/10.17504/protocols.io.eq2lyweepvx9/v1>

License: This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Protocol status: Working

We use this protocol and it's working

Created: July 14, 2024

Last Modified: May 06, 2025

Protocol Integer ID: 103371

Keywords: plate reader, baf-s05-plate reader spectramax id3 standard operation, spectramax id3 plate reader, plate

Abstract

Standard operation of the SpectraMax iD3 plate reader.

Materials

SpectraMax iD3 Multi-Mode Microplate Reader User Guide - Molecular Devices

General:

- 1 The instrument can measure in 3 distinct modes: Absorbance, Luminescence or Fluorescence.
→ Fluorescence wavelength range: EX 250-830nm, EM 270-850nm. Plate sizes: 96 or 384 wells.
→ Luminescence wavelength range: 300-850nm or 300 - 650 nm for "All Wavelengths" setting. Plate sizes: 96 or 384 wells.
→ Absorbance: 230 - 1000 nm. Plate sizes: 6, 12, 24, 48, 96, and 384-well plates.
There are reading types. available: Endpoint read type, Kinetic read type, Well Scan read type, and Spectrum read type.
Software: SoftMax version

Prepare samples to be measured in proper plate and containing samples and standard curve as needed for each application and experimental design.

For reference refer to SpectraMax iD3 user guide and SoftMax User Guide.

Operating:

- 2 Use your lab User and password for computer login
Open Data acquisition and analysis software Softmax Pro version 7.1.2. There are many personalized methods and analysis that can be edited and saved.
To use any pre-set protocol:
Click Protocols → Protocol manager → Protocol Library → Choose a protocol and load.
or follow this general step-by-step to get samples measured and export data without creating a new protocol or using a pre-set.
- 3 Click open Softmax 7.1.2
Check instrument connection status -- should be connected with a green check. If showing disconnected: click on the instrument icon, the instrument connection dialog is displayed. In the available instrument list wait to display Offline Spectra Max iD3, select Spectra Max iD3, click OK
It should connect → for troubleshooting refer to Softmax Pro User Guide.
- 4 A general process for preparing, collecting, and analyzing data is as follows:
Start the SoftMax Pro Software.

Select an instrument: Check instrument connection status → it should be connected with a green check. If showing disconnected: click on the instrument icon, the instrument connection dialog is displayed. In the available instrument list wait to display Offline Spectra Max iD3, select Spectra Max iD3, click OK
It should connect → for troubleshooting refer to Softmax Pro User Guide.

Choose a data acquisition protocol. You can use an existing protocol or create a new one.

→ To use an existing protocol:

1. Click the Application button to open the Application menu.
2. Select Open. The Data Files file type is selected by default.
3. Select a protocol file type from the list.

SoftMax Pro Software 7 can open files created by version 4.0 or newer.

When you open a file from a previous version, it is converted to SoftMax Pro Software version 7 format.

4. Navigate to the protocol file you want to open.
5. Select the file.
6. Click Open.

An untitled file opens in the workspace with the settings of the selected protocol applied to

it. Before using the protocol to collect data, save it as a data file.

→ To set up a new protocol:

Define the instrument settings to use with the protocol. To open the Settings dialog:

1. Click Settings on the Home tab in the ribbon or in the toolbar at the top of the active section.

The available options in the Settings dialog has two methods available for configuring a microplate read.

The Standard View uses a table-like design, with selectable categories where you can configure your settings. The Acquisition View uses a workflow design, with drag-and-drop tools to configure your settings.

Select parameters for your application:

- 1- Read modes: ABS, FL or LUM
- 2- Read type: Endpoint, kinetic, well scan or spectrum
- 3- Categories: → type wavelengths → select the plate type applied to your measurement from the list → Read area: select specific wells or entire plate → Path check: uncheck → Shake: check and select specific settings (time in seconds, intensity, and shake mode) or leave empty if no shaking is needed before measurement → More settings: define read order row or columns-wise.

After defining the settings for the protocol, click OK to close the Settings dialog.

- 4- Click on the open door icon
- 5- Insert your plate, A1 position should be at the top left corner
- 6- Click on the Read icon in the software → door will close automatically and measurements will start.
- 7- Click the Open door icon
- 8- Remove plate
- 9- Click the close door icon



→ To save and export the acquired data:

1-Click on home → save as → spd

or

2- Click on home → export → plate → txt or xls → choose folder location → save

Close Softmax Pro software

Log out from your user

Leave computer on