BIO-SCIENCE

MOLECULAR DEVICES

SpectraMax iD3s

Multi-Mode Microplate Reader

Streamlined three-mode reader with environmental controls and injectors

The streamlined SpectraMax® iD3s tunable monochromator-based microplate reader with temperature control provides an affordable solution for measuring absorbance, fluorescence, and luminescence. The reader's optional upgrades include dual injection and support for live cell assays with environmental controls (CO_2/O_2) and advanced shaking.

Intuitive data acquisition and analysis is powered by the included SoftMax® Pro Software, the industry's most cited microplate reader software.

Key benefits

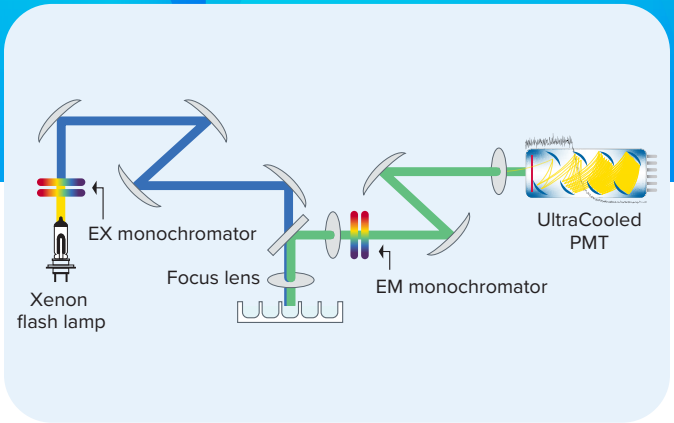
Performs ELISA, nucleic acid and protein quantitation, cell viability, microbial assays, and more.

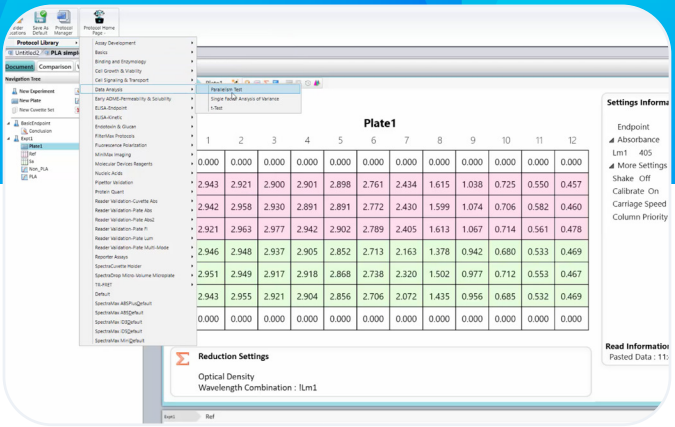
Fully tunable monochromator wavelength selection for assay flexibility.

Optional Dual injectors with SmartInject Technology ensure complete reagent mixing in every well for flash-based assays.

Optional gas mixer and advanced shaking for live cell assays.

Key features



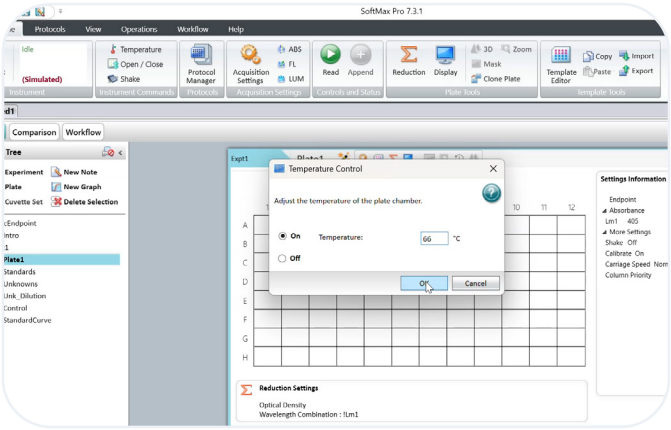


Superior optical system

The high-efficiency monochromator optical system, combined with an ultra-cooled photomultiplier tube (PMT), minimizes noise while increasing sensitivity, selectivity, and dynamic range.

Simplified data acquisition and analysis

Over 200 preconfigured protocols are available for a wide variety of common assays, including protocols for our entire suite of reagents. SoftMax Pro Software integrates data acquisition and analysis into a single, user-friendly interface.



Flexible temperature control

Simple-to-use temperature control allows you to adjust your experiment's conditions from ambient up to 66°C, expanding your laboratory's capabilities to include temperature sensitive assays.

Continuous support & service

Remote and onsite PhD level support is offered for technical and application related topics.

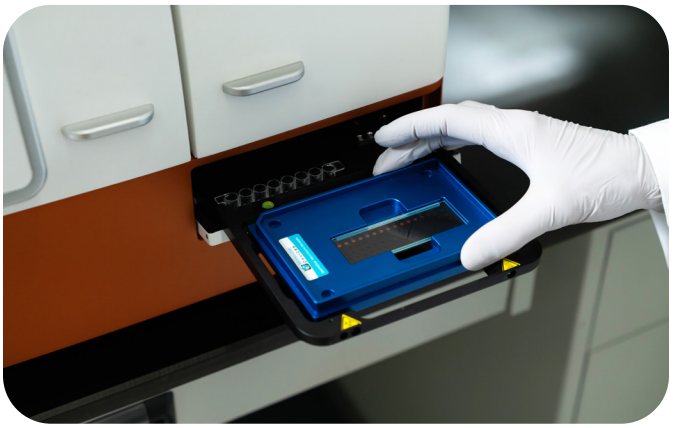
Optional features

Dual injectors

On-board fluidics are available for fast kinetic assays with SmartInject® Technology, ensuring complete reagent mixing in every well for high-precision with 10 µL dead volume.

Live cell assays

Advanced shaking and user-installable gas mixer (CO_2/O_2) that support ideal environments for cell-based and microbial growth experiments are available as optional upgrades.



Microvolume & cuvette options

The SpectraDrop™ Micro-Volume Microplate for low-volume (2 to 4 µL) and SpectraCuvette™ Adapter Plate for cuvette-based applications eliminate the need for additional instrumentation.

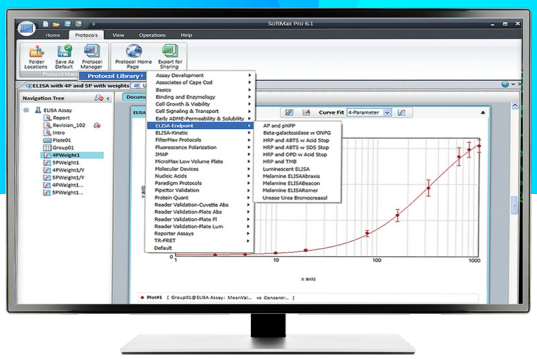
Perform a wide range of assays & applications

- Apoptosis
- Cytotoxicity
- Real-time cell viability
- ATP flash luminescence
- ELISA
- Reporter gene
- Cell signaling
- Microbial growth
- Enzyme activity
- DNA/RNA/Protein quantitation
- Microvolume detection

Complete solution for all your research needs

For over 40 years, Molecular Devices has provided scientists with tools to expand the boundaries of their research. Our microplate readers are the industry's most cited instruments and have empowered life science researchers to advance protein and cell biology, breaking the barriers to novel, landmark discoveries. The SpectraMax iD3s reader is built on the same foundation that has made our entire SpectraMax microplate reader product line among the most trusted in the industry.

40 YEAR ANNIVERSARY



Data acquisition & compliance software for researchers

SoftMax Pro Software – Standard Research Labs

SoftMax Pro Software is the industry's leading data acquisition and analysis software, designed for ease of use and powerful performance in non-regulated research environments.

SoftMax Pro GxP Software – Regulated GMP/GLP Labs

SoftMax Pro GxP Software is our most secure software to help you achieve full FDA 21 CFR Part 11 and EudraLex Annex 11 compliance in GMP/GLP labs. Its streamlined workflows assure data integrity, where every step is optimized to simplify analysis and reporting.

Installation services

Our software installation services verify and document that required components are installed to operational specifications. SoftMax Pro GxP Software can be installed on a single computer or on a multi-computer networked environment by our expert technical support or professional services team via remote access, respectively.

Validation service

Our on-site SoftMax Pro GxP Software validation service supports FDA and EudraLex guidelines and is conducted by our certified professional. Each step in the process will be carefully planned and executed.

SpectraTest Validation Plates and Recertification

The SpectraTest® Validation Plates are valuable tools for verifying that absorbance-, fluorescence-, and luminescence-capable microplate readers are operating correctly for GMP and GLP laboratories.

Specifications

General specifications

Dimensions (in.)	15.79 (H) x 20.94 (W) x 23.54 (D)
Dimensions (cm)	40.1 (H) x 53.2 (W) x 59.8 (D)
Weight	88.1 lbs. (40 kg)
Power requirements	100–240 VAC, 2 A, 50/60 Hz
Robotic compatible	Yes

General performance

Plate formats	6 to 384 wells
Light source	Xenon flash lamp
Reading capabilities	Microplates, cuvettes (via adapter), low volume (SpectraDrop)
Detectors	Photomultiplier Tube and Photodiode
Shaking	Linear, orbital, and infinity
Temp. control	5°C above ambient to 66°C[1]
Temp. uniformity	± 0.75°C
Temp. accuracy	± 1°C at 37°C set point
Spectral scanning	Abs, Fl, Lum
Endpoint reading	Abs, Fl, Lum
Kinetic reading	Abs, Fl, Lum
Well scanning	Over 20 by 20 in all modes
Read height optimization	Fl, Lum
Wavelength selection	1.0 nm increments

Standard read times (minutes:seconds)

	96 wells	384 wells
Absorbance	0:25	1:25
Fluorescence intensity[2]	0:17	0:53
Luminescence[2]	0:26	1:01

Absorbance photometric performance

Wavelength range	230–1000 nm
Wavelength bandwidth	4.0 nm
Wavelength accuracy	± 2.0 nm
Wavelength repeatability	± 1.0 nm
Photometric range	0–4.0 OD
Photometric resolution	0.001 OD
Photometric accuracy	< ±0.010 OD ±1.0%, 0–3 OD
Photometric precision	< ±0.003 OD ±1.0%, 0–3 OD
Stray light	< 0.05% @ 230 nm, 280nm

Fluorescence intensity performance

Wavelength range	250–850 nm	
Wavelength selection	1.0 nm increments	
Dynamic range	> 6 logs	
Optimized top sensitivity (fluorescein)	96 wells	384 wells
	1 pM	1 pM
Optimized bottom sensitivity (fluorescein)	96 wells	384 wells
	2 pM	2.5 pM

Specifications (continued)

Luminescence performance

Wavelength range	300–850 nm	
Wavelength selection	Choice of simultaneous detection of all wavelengths or selection in 1.0 nm increments	
Dynamic range	> 7 decades	
Cross-talk	< 0.1% in white 96- and < 0.2% in 384-well microplates	
Optimized sensitivity (ATP)	**96 wells**	**384 wells**
	2 pM	4 pM

Injector system with SmartInject Technology (optional)

Injectors	2
Read modes	Abs, Fl, Lum
Dispense accuracy	± 5% at 100 µL
Dispense precision	≤ 2% cv at 100 µL
Dead volume	Injector Tubing: 250 µL < 10 µL with Reverse Prime function

SpectraMax aer gas mixer (optional)

O_2 control range	1–21% in 0.1% increments[3]
CO_2 control range	0.1–15% in 0.1% increments[4]
O_2 accuracy	±1.0% (37°C, 1% O_2)
CO_2 accuracy	±1.0% (37°C, 5% CO_2)

❶ *At temperature range from 55°C (131°F) up to 66°C (150.8°F) ambient temperature of 25°C (77°F) is required.*
❷ *10 msec integration time for fluoresence measurement. 100 msec integration time for luminescence for a 96-well plate and 40 msec integration time for a 384-well plate.*
❸ *Upper limit is altitude dependent*
❹ *Lower limit at ambient with 0.04%*

Learn more about the
SpectraMax iD3s Multi-Mode Microplate Reader

Bio-Science Kft.
1119 Budapest, Fehérvári út 79.
Tel.: 06-1-619-8321 / 06-1-61
Fax: +36 1 799 01 59
e-mail: bio-sci@bio-science.hu

BIO-SCIENCE
www.bio-science.hu