

MRX^e & MRX^etc microplate absorbance readers



DYNEX

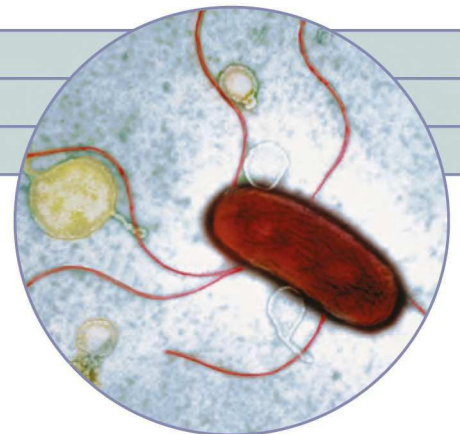
MAGELLAN BIOSCIENCES

Improving outcomes from discovery to diagnostics

Looking for an affordable microplate absorbance reader with the widest wavelength range available? The next-generation **MRX^e** reader is ideal for labs with high-performance needs and tight budgets. Compact and powerful, the **MRX^e** integrates directly with your PC. It combines excellent performance and high-utility capabilities with the features most labs need for demanding research, clinical-diagnostic, and academic applications.



The experts in microplate analysis



MRX^e and MRX^e tc microplate absorbance reader

Dynex's MRX^e absorbance reader is:

- **Flexible** – Available with optional temperature control (ambient to 63° C), the MRX^e supports the following assay types:
 - Endpoint
 - Kinetic
 - Tissue culture/agglutination
- **Easy to use** – The MRX^e allows you to assign frequently used assays to “Quick Start” buttons to save time and eliminate guesswork in multi-user labs
- **Reliable** – The MRX^e enables you to produce consistent results plate-to-plate, day-to-day, and instrument-to-instrument
- **Powerful** – The MRX^e delivers excellent linearity, accuracy, and precision
 - **Quick read times** – < 4 seconds for a 96-well plate
 - **Wide dynamic range** – -0.1 to 4.0 OD

Applications

The MRX^e absorbance reader is ideal for a range of research and clinical applications, including:

- Enzyme Immunoassay (ELISA) for infectious and autoimmune disease, to food safety and drugs-of-abuse testing
- Cyclic nucleotides
- Eicosanoids
- Free radicals
- Chemokines
- Cell adhesion
- Apoptosis markers
- Nucleosome analysis
- p53
- PCR detection
- RT-PCR detection

Optional verification plate

For those labs that need additional assurance that the MRX^e absorbance reader is performing to specification, Dynex offers the MRX verification plate, which comes with a calibration certificate, and tests for:

Plate alignment – X-axis, Y-axis, and skew

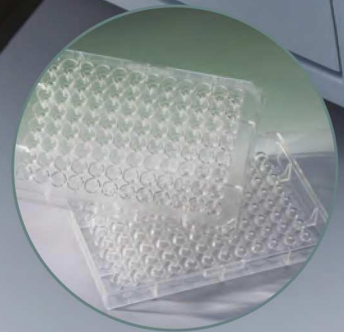
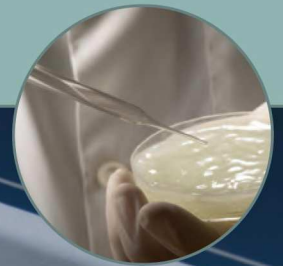
Linearity – Linearity of OD measurements

Filter test – Verifies correct installation of the eight most-common optical filters

Optical channel matching – Verifies consistent results across all MRX optical read channels

Photometric accuracy – Verifies correct absolute OD measurement (NIST and NPL traceable absorbance at 450 nm)

The experts in micro



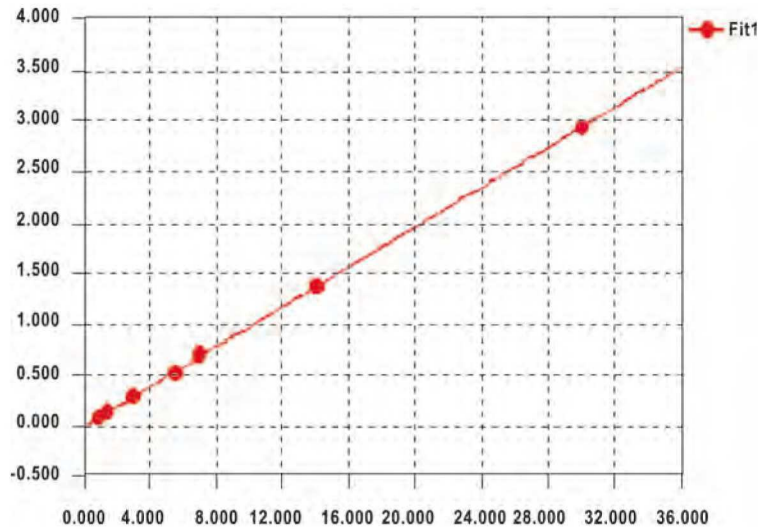
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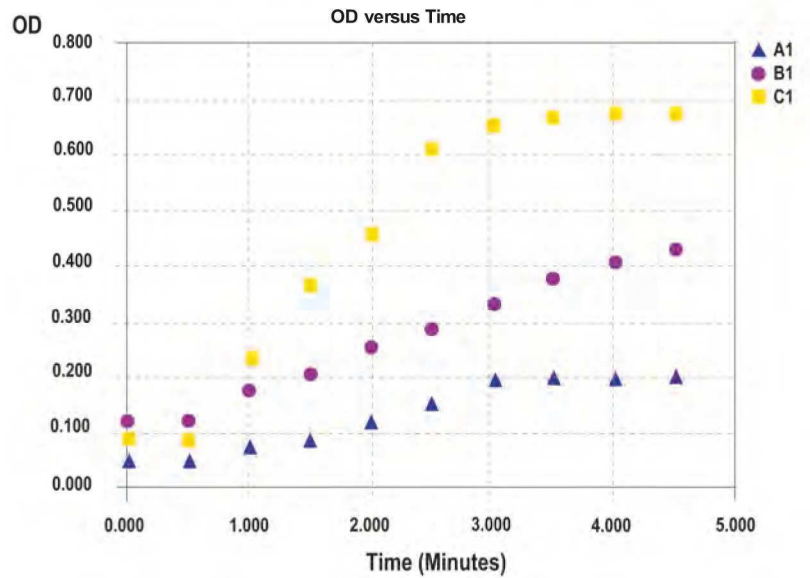
The Dynex MRX^e and MRX^e tc combine excellent performance and high-utility capabilities with the features most labs need for demanding research, clinical-diagnostic, and academic applications.



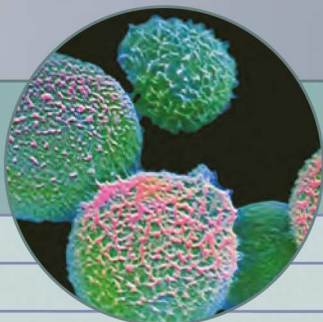
MRX^e Calibration Curve



A representative MRX^e calibration curve shows excellent linearity to 3.0 OD. The MRX^e provides more than 10 curve-fit options for standard curves



Three overlaid curves from a 96-well plate



MRX^e Specifications

Performance

405 nm to 850 nm wavelength range

Dynamic range	-0.100 to 4.000 OD	
Linearity	0.000 to 2.000 OD	±1.0%
	2.001 to 3.500 OD	±1.5%
Precision	0.000 to 2.000 OD	0.2% or 0.005 OD, whichever is greater
	2.001 to 3.000 OD	0.6% CV
	3.001 to 3.500 OD	1.0% CV
Accuracy	0.000 to 3.500 OD ±2.5% or 0.005 OD, whichever is greater	

340 nm to 400 nm wavelength range

Dynamic range	-0.100 to 3.000 OD	
Linearity	0.000 to 2.500 OD	±2.0%
Precision	0.000 to 2.000 OD	0.6% CV or 0.005 OD, whichever is greater
	2.001 to 2.500 OD	1.0% CV

Physical specifications

Width	360 mm	14.2 in
Depth	390 mm	15.4 in
Height	220 mm	8.7 in
Weight	10 kg	22 lb

Operation

Read cycle time

Single wavelength	< 4 seconds
Dual wavelength	< 6 seconds

Electrical

Light source	Halogen lamp
Voltage	100 to 120 V or 200 to 240 V
	50 to 60 Hz
Power consumption	250 VA

Interface

Computer interface	USB
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Temperature control (MRX^e tc)

Stability	< ± 0.5° C
Accuracy	± 1.0° C
Time to temperature	8 minutes
Temperature range	Ambient to 63° C

Computer requirements

One USB port
Microsoft Windows XP
100 MB free hard drive space
128 MB RAM

Ordering information

20310 MRX ^e microplate reader
20410 MRX ^e tc microplate reader with temperature control

Accessories

20098 MRX verification plate

Immunoassay plates

1000 Immulux, 96-well flat-bottom plates (40/box)
1010 Immulux HB, 96-well high-binding, flat-bottom plates (40/box)
1011 Immulux HB, 96-well high-binding, 'U'-bottom plates (40/box)



The optional MRX verification plate is supplied with a calibration certificate

About Dynex

The experts in microplate analysis, Dynex Technologies, Inc. is a leading manufacturer of microplate instrumentation incorporating advanced detection and fully automated sample handling, consumables, and accessories used in clinical diagnostics, drug discovery, biomedical research, and industrial applications worldwide. Founded in 1952, and headquartered in Chantilly, Virginia, Dynex is a wholly owned subsidiary of Magellan Biosciences.

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