



Microplate Systems

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Microplate Absorbance Readers and Accessories

Instruments and Software

See Also

Protein assays:
pages 20–22.

iMark™ Microplate Absorbance Reader

Order Info: Pg 280

This reader offers a preprogrammed validation protocol and a built-in printer. The instrument can be used as a stand-alone reader or controlled by a PC or Mac with Microplate Manager® 6 software, and comes with six standard absorbance filters: 415, 450, 490, 595, 655, and 750 nm. Five additional filters are available (405, 540, 550, 570, and 630 nm) as well custom filters at 5 nm intervals from 400 to 750 nm on request.

- Ability to read flat-, U-, or V-bottom microplates or 8- or 12-well strip plates
- Automatic calibration before each reading
- Variable-speed plate-shaking capability



- Multilingual interface and LCD display (English, Japanese, Chinese, and Russian)

For More Information

Web: www.bio-rad.com/iMark

Request or download bulletin: 5670

xMark™ Microplate Absorbance Spectrophotometer

Order Info: Pg 280

With its monochromator design and spectral scanning feature (which eliminates the need for filters), this spectrophotometer can find the best wavelength within a broad range for any photometric application. The xMark spectrophotometer can read all standard microplates, from 6- to 1,536-well formats, and can perform a wide range of end point and kinetic applications with spectral scanning within low UV to infrared wavelengths.

- Monochromator-based system for maximum optical efficiency and flexibility in photometry reading
- Spectral scanning to define the best absorbance wavelength for assays
- High-performance optics for low- or high-density formats
- Imaging capabilities for pixel intensity data in a single well or entire plate



- Includes Microplate Manager® software
- Built-in plate shaker with variable mixing direction and adjustable speed and incubator with programmable temperature control

For More Information

Web: www.bio-rad.com/xMark

Request or download bulletin: 5671

Microplate Manager® 6 Software

Order Info: Pg 280

Bio-Rad's iMark™ microplate reader and xMark™ microplate spectrophotometer can be utilized to their full potential with Microplate Manager 6 software. This comprehensive software package allows powerful, versatile colorimetric and turbidimetric analyses and report analysis for raw data, qualitative and quantitative calculations based on absorbance limits, matrix of equations, normalization, and curve fit. Microplate Manager software expands your range of data analysis options to include kinetics and screening,

and adds the functionality of flexible template creation for any standard microplate format up to 1,536 wells and for 60- and 70-well Terasaki plates. The custom reporting function provides one-button screening for predefined assays such as those for TSE screening.

For More Information

Web: www.bio-rad.com/microplatemanager

ImmunoWash™ 1575 Microplate Washer

Order Info: Pg 280

The ImmunoWash 1575 microplate washer makes it easy to customize your plate-washing protocols. It offers complete control of needle position to perform special wash routines and maximize wash efficiency. This washer includes a wide choice of wash sequences to facilitate protocol creation and storage, and it is compatible with strips and 96-well microplates that have flat-, U-, or V-bottom wells.

- Programmable needle positions (horizontal and vertical) to an accuracy of 0.1 mm for bottom washing, crosswise aspiration, and overflow washing
- Dispensing speed control
- A plate-shaking option to help minimize bubbles and adherence of liquid to well sides



- Waste bottle sensor to detect high waste liquid levels
- Up to 75 programmable washing sequences

For More Information

Web: www.bio-rad.com/immunowash
Request or download bulletins: 2054 and 2135

Singleplex Assays and Performance Verification

ELISA Reagents

Order Info: Pg 280

Enzyme-Antibody Conjugates

Bio-Rad offers enzyme-antibody conjugates and ELISA soluble substrate systems suitable for use in all microtitration enzyme immunoassays. Antibodies are available conjugated to HRP or AP enzymes.

Substrate Systems

The AP substrate kit contains *p*-nitrophenyl phosphate (pNPP) tablets and dilution buffer concentrate to prepare 500 ml of working solution. Benefits of the AP system include an extremely linear reaction rate and low background values for accurate quantitation by ELISA.

There are two convenient substrate systems for detection of HRP-labeled antibodies. Both the 2,2'-azino-di(3-ethylbenzthiazoline)-6-sulfonic acid (ABTS) peroxidase substrate kit and the 3,3',5,5'-tetramethylbenzidine (TMB) peroxidase substrate kit contain liquid reagents that are mixed just prior to use.

The single-component TMB peroxidase EIA substrate kit makes microplate assays convenient and fast.

For More Information

Web: www.bio-rad.com/microplatereagents

See Also

Blotting-grade conjugates: page 200.

Mouse Antibody Isotyping Kit

Order Info: Pg 280

This kit provides a convenient ELISA method for identifying the class, subclass, and light-chain type of mouse IgGs in tissue culture supernatant and ascites fluid. The kit allows screening of up to 12 different antibody samples per plate. Each sample

is reacted with 8 subclass-specific antisera to determine the heavy- and light-chain types of the monoclonal antibody.

For More Information

Web: www.bio-rad.com/microplatereagents

Checkmark™ Reader Performance Verification and IQ/OQ Kits

Order Info: Pg 280

The Checkmark reader performance verification kit consists of an absorbance calibration plate and Checkmark software. This kit is an IQ/OQ tool that can be used to validate instrument performance parameters of Bio-Rad's microplate absorbance readers.

The Checkmark check plate is compatible with all Bio-Rad microplate absorbance readers and is NIST certified to confirm calibration traceability. Checkmark software allows automated testing of Bio-Rad microplate absorbance readers and generates reports specific to instrument type and serial number to ensure GLP compliance.

Microplate Absorbance Readers and Accessories

Instruments and Software

Catalog #	Description	
iMark Microplate Absorbance Reader		Pg 278
168-1130	iMark Microplate Absorbance Reader , 100/240 V, includes 6 filters (415, 450, 490, 595, 655, 750 nm), built-in plate shaker, onboard software and thermal printer, one roll printer paper, USB2 and power cables	
168-1135	iMark Microplate Absorbance Reader with Microplate Manager 6 Software , for PC and MAC	
xMark Microplate Absorbance Spectrophotometer		Pg 278
168-1150	xMark Microplate Absorbance Spectrophotometer , PC or Mac, built-in incubator, plate shaker, Microplate Manager 6 software, USB2 and power cables	
168-2000	Plate Adaptor , for using Terasaki plate with xMark microplate absorbance spectrophotometer	
Microplate Manager 6 Software		Pg 278
168-9520	Microplate Manager 6 Software , PC and Mac, for end-point and kinetic data analysis with iMark microplate absorbance reader and xMark microplate spectrophotometer	
ImmunoWash 1575 Microplate Washer		Pg 279
170-7009	ImmunoWash 1575 Microplate Washer , 110–240 V, includes bottle and tubing set, 8-port manifold, aerosol protection cover	
170-7021	ImmunoWash 1575 12-Channel Manifold	
170-7026	ImmunoWash 1575 Standard Maintenance Kit	

Singleplex Assays and Performance Verification

ELISA Reagents		Pg 279
Enzyme-Antibody Conjugates		
172-1011	Goat Anti-Mouse IgG (H + L)-HRP Conjugate , 2 ml	
172-1033	Goat Anti-Human IgG (γ)-HRP Conjugate , 1 ml	
172-1019	Goat Anti-Rabbit IgG (H + L)-HRP Conjugate , 1 ml	
172-1034	Rabbit Anti-Goat IgG (H + L)-HRP Conjugate , 1 ml	
172-1017	Rabbit Anti-Sheep IgG (H + L)-HRP Conjugate , 1 ml	
172-1037	Rabbit Anti-Goat IgG (H + L)-AP Conjugate , 1 ml	
Substrate Systems		
172-1063	AP Substrate Kit , contains 100 pNPP tablets and 100 ml 5x concentrate diethanolamine buffer	
172-1064	HRP Substrate Kit , contains 180 ml ABTS, 20 ml hydrogen peroxide	
172-1066	TMB Peroxidase EIA Substrate Kit , contains 180 ml TMB solution, 20 ml hydrogen peroxide	
172-1067	TMB Peroxidase EIA Substrate Kit , contains 900 ml TMB solution, 100 ml hydrogen peroxide	
172-1068	Single-Component TMB Peroxidase EIA Substrate Kit , contains 100 ml TMB solution	
172-1072	Single-Component TMB Peroxidase ELISA Substrate Kit , contains 1 L TMB solution	
Mouse Antibody Isotyping Kit		Pg 279
172-2051	Mouse Typer Isotyping Kit , includes mouse isotyping panel, affinity purified goat anti-rabbit IgG (H + L)	
172-2055	Mouse Typer Isotyping Panel , includes 10 ml each ultrapure rabbit anti-mouse subclass-specific antiserum to mouse IgG ₁ , IgG _{2a} , IgG _{2b} , IgG ₃ , IgM, IgA, κ-chain, and λ-chain 656.00	
Checkmark Reader Performance Verification and IQ/OQ Kits		Pg 279
168-6940	Checkmark Reader Performance Verification Kit , includes absorbance calibration plate, Checkmark software	
168-2230	IQ/OQ Kit for iMark Microplate Absorbance Reader , includes 168-6940, IQ/OQ protocols	
168-2250	IQ/OQ Kit for xMark Microplate Absorbance Spectrophotometer , includes 168-6940, IQ/OQ protocols	