eppendorf



Ready for Reading

Unprecedented ease of use: The new Eppendorf PlateReader AF2200



The new PlateReader AF2200 from Eppendorf combines easiest handling with highest flexibility while generating best reproducible results.

»Easy to use, easy to program, perfect results—all in one and all new: Eppendorf PlateReader AF2200.«

The new Eppendorf PlateReader AF2200 is specially designed for UV/Vis and fluorescence readings in 6 to 384 well format. The system offers pre-defined methods as well as the flexibility to create personal methods. Optimized and pre-configured filter slides are available which fit perfectly to the methods and are composed to prevent cross talk between the filter combinations.

Easy to program: Pre-programmed methods including

- > Analysis for nucleic acid and protein quantification
- > Analysis for cell based assays
- > Methods based on factor, standards or standard curves

Easy to use: Pre-configurated absorbance and fluorescence filter slides

- > For UV/Vis or fluorescence applications, incl. cell based assays
- > Optimized filter combination to prevent cross talk
- > Additional range of filters available

Diversity and flexibility: Eppendorf Microplates as perfect accessories

- > Microvolume analysis using the Eppendorf µPlate G0.5
- > Calculation of the concentration by factor using the Eppendorf Microplate UV-VIS
- > Database pre-loaded with a large number of plate styles and well configurations









Eppendorf PlateReader AF2200

The PlateReader AF2200 is the ideal device for quantifying biomolecules such as nucleic acids and proteins, and measuring fluorescence-based assays in a plate format. The device software features optimized, pre-programmed applications and a flexible selection of individual parameters. It also offers the option to freely program all parameters in order to meet special requirements. The system is developed to simplify set-up procedures and thus to eliminate cumbersome lab work.

Product features

- > Multimode plate reader for UV/Vis absorption and fluorescence intensity (top and bottom reading)
- > Pre-programmed applications for quick start including basic calculations and analysis
- > Calculation via factor, standards or standard series
- > Clearly arranged and intuitive software
- > Temperature control and the option to shake the sample plate

Intuitive Software

The PlateReader AF2200 unites pre-programmed methods, easy programming of individual parameters and data evaluation with maximum flexibility. Besides the pre-programmed methods all settings to create personal workflows are available. To prevent errors, the software automatically checks commands and the graphic interface is clearly organized to display well positioning and legend. A help bar is located on the right side of the screen to explain step by step procedures. Factor based calculation eliminates the need to perform standard series measurements.

Product features

- > Pre-programmed methods for a quick start
- > Factor based calculation eliminates the need to perform standard series measurements
- > Basic data analysis for the pre-programmed methods is included
- > Clearly organized interface provides help information
- > Personal workflows can be created

Pre-programmed methods for Standard Curves including methods for cell based assays



- > Methods for evaluation via standard curve for nucleic acid and protein
- Methods for cell based assays (Viability and Apoptosis)
- > Flexible programming for number of blanks, standards, replicates and samples
- > Plate layout will be done automatically
- > All raw data and results are available as Excel[®] Sheet

Pre-programmed methods for Eppendorf μPlate G0.5



- > Measurement of sample volumes in the microvolume scale (≥ 2.0µL)
- > Method for evaluation via sample specific factor (absorption coefficient)
- > Individual blanking of all positions possible
- > Automatic calculation of the results concerning the Beer's Lambert law
- > No need to prepare standard curves
- > All raw data and results are available as Excel Sheet

Pre-programmed methods for factor based calculation including analysis

Parameter Wavelength 250 mm			1 2 3 4 5 6 7 8 9 10 11 12
Rato valength 280 s	-	8	
Beckground wavelengt	# 340 mm	1	
Blank replicates	1	12	
Number of samples	45	1	
Sample type	deDNA.		
Sample volume	1004		
Unit	up tel		+

- > Method to analyze defined sample volumes in the Eppendorf Microplate UV-VIS
- > Volumes between 100µL and 300µL can be used
- > Liquid level (filling volume) defines the light path length
- > Automatic calculation of the results based on the Beer's Lambert law
- > No need to prepare standard curves
- > All raw data and results are available as Excel Sheet

Eppendorf FilterSlides

The pre-configured filter slides from Eppendorf are optimized to the pre-programmed methods available in the Eppendorf PlateReader AF2200 software. They are designed to offer the highest flexibility while preventing cross talk. A large number of additional filters allows to create individual filter slides in a flexible way. An online configurator* helps to combine the filters in the most efficient way. The software of the instrument recognizes the filter combination of the filter slide and checks if the method setting fits to the currently used filters.

For the most frequently used PlateReader AF2200 applications, Eppendorf offers two pre-configured filter slides with optimized filter assignment to match the pre-programmed applications. The software automatically recognizes the filter combination of the filter slide.

Product features

- > Optimized filter assignment for UV/Vis or fluorescence applications, pre-programmed in the PlateReader AF2200 software
- > Combination of filters covers a broad spectrum of UV/Vis or fluorescence applications
- > UV/Vis filter slide for molecular biology applications
 (e.g. nucleic acids, proteins, OD600)
- > Fluorescence filter slide for molecular biology and cell biology applications
- > Combination of filters in the fluorescence filter slide are arranged to prevent cross talk



Technical Data

	UV/Vis filter slide for PlateReader AF2200	Fluorescence filter slide	e for PlateReader AF2200
	A.		A A
	999		
		D	
		Excitation	Emission
Filter wavelengths	260 nm (5 nm)	Excitation 360 nm (35 nm)	Emission 465 nm (35 nm)
Filter wavelengths	260 nm (5 nm) 280 nm (5 nm)	Excitation 360 nm (35 nm) 485 nm (20 nm)	Emission 465 nm (35 nm) 535 nm (25 nm)
Filter wavelengths	260 nm (5 nm) 280 nm (5 nm) 340 nm (10 nm)	Excitation 360 nm (35 nm) 485 nm (20 nm) 485 nm (20 nm)	Emission 465 nm (35 nm) 535 nm (25 nm) 595 nm (35 nm)

Eppendorf Plates

New Eppendorf Microplates and a microvolume plate are available as optional accessories for the PlateReader AF2200. The plate portfolio fits perfectly to the pre-programmed methods of the PlateReader AF2200 and covers even more applications. The Eppendorf Microplate UV-VIS can be used to perform factor based concentration calculation. This saves the time and money to prepare standard curves. Black plates to measure highly reproducible even low fluorescence signals and special plates for cell based applications for top and bottom readings are available as well.



Eppendorf µPlate G0.5

The new Eppendorf μ Plate G0.5 can be used to measure up to 16 samples in the microvolume scale ($\geq 2\mu$ L). The optical path length of just 0.5mm allows high nucleic acid concentrations to be measured with high reproducibility and without prior dilution. Because the concentration is determined using a sample-specific factor, a standard series measurement is not required.

Product features

- > Easy handling and cleaning
- > Sample-specific factor for the concentration calculation eliminates the need for a standard series measurement
- > Application for sample quantification is pre-programmed in the software of the Eppendorf PlateReader AF2200

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Technical	Data

	96 clear (Vis)	96 clear (UV-Vis)	96 black/clear	96 black / 384 black	μPlate G0.5
Material	Polystyrene	Film bottom	Film bottom	Polypropylene	Quartz glass
Application	e.g. Protein Colori- metric, ELISA (non coated)	e. g. Nucleic acid + Protein direct (also via factor)	e.g. Cell based assays, especially adherent cells	e.g. Nucleic acid + Protein labelled (flourescence), Cell based assays	Nucleic acid quantifi- cation in microvolume (>2µL)
Mode	absorbance; Vis	absorbance; UV/ Vis	fluorescence (top and bottom)	fluorescence (top)	absorbance; UV/ Vis

See back page for ordering information of plates.

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Technical Data Eppendorf PlateReader AF2200

Dimensions (W \times D \times H)	462 × 458 × 282 mm
Weight w/o accessories	16 kg
Compatible plates	6 to 384 wells, microvolume plate (Eppendorf μPlate G0.5)
Detector	UV/Vis absorption: UV silicon photodiode/Fluorescence intensity: Photomultiplier
Shortest measurement time	96-well plate (20 s), 384-well plate (30 s)
Temperature control	Ambient temperature + 5 °C up to 42 °C
Light source	UV Xenon flash lamp
Absorption measuring range	0 A – 4,0 A
Mode	Two operating modes: UV/Vis absorption/Fluorescence intensity: top/bottom
Shaking	Linear/orbital, amplitude can be selected from 1 – 6 mm in 0.5 mm increments
Software	PlateReader AF2200 application software, pre-programmed applications including basic data evaluation
Software compatibility	Windows [®] 7, XP or Vista
Wavelength range	UV/Vis absorption: 230 – 1,000 nm/Fluorescence intensity: Ex: 230 – 600 nm, Em: 330 – 600 nm

Ordering information

Description	International Ordering no.	North America Ordering no.
Eppendorf PlateReader AF2200, 230 V/50-60 Hz	6141 000.002	-
Eppendorf PlateReader AF2200, 120 V/50-60 Hz	6141 000.010	6141000010
Eppendorf µPlate G0.5 & PlateReader AF2200 (bundle), Eppendorf microvolume plate and PlateReader AF2200, 230 V/50-60 Hz	6141 000.908	-
Eppendorf μPlate G0.5 & PlateReader AF2200 (bundle), Eppendorf microvolume plate and PlateReader AF2200, 120 V/50-60 Hz	6141 000.909	6141000922
Eppendorf µPlate G0.5, Eppendorf microvolume plate for the Eppendorf PlateReader AF2200	6144 000.003	6144000003
Fluorescence filter slide for PlateReader AF2200, preconfigured filter slide, optimized for the fluorescence dyes most frequently used in molecular biology and cell biology labs (360/465, 485/535, 485/595, 535/595)	6141 070.027	6141070027
UV/Vis filter slide for PlateReader AF2200, preconfigured filter slide, optimized for applications in the UV and Vis range, 4 filters (260, 280, 340, 600 nm)	6141 070.019	6141070019
Filter case for filter slides	6141 070.035	6141070035

Ordering information				
Description; Packaging size; Purity	Well color	Frame color	International Ordering no.	North America Ordering no.
Eppendorf Microplate 96/F-PP; 80 (5 bags of 16); PCR clean	Black	White	0030 601.700	0030601700
Eppendorf Microplate 96/U-PP; 80 (5 bags of 16); PCR clean	Black	White	0030 601.807	951040102
Eppendorf Microplate 96/V-PP; 80 (5 bags of 16); PCR clean	Black	White	0030 601.904	951040260
Eppendorf Microplate 384/V-PP; 80 (5 bags of 16); PCR clean	Black	White	0030 621.905	951040481
Eppendorf Microplate VIS, 96/F-PS; N/A; PCR clean	Clear	Clear	0030 730.020	0030730020
Eppendorf Microplate UV-VIS, 96/F; 40 (4 bags of 10); PCR clean	Clear	Clear	0030 741.048	0030741048
Eppendorf Cell Imaging Plate, 96-well; 20/individually wrapped; Sterile	Black/Clear	Black	0030 741.013	0030741013

Your local distributor: www.eppendorf.com/contact Eppendorf AG 22331 Hamburg Germany eppendorf@eppendorf.com www.eppendorf.com

www.eppendorf.com/detection

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