

Agilent BioTek Synergy H1 Multimode Reader

Technical details

| General | |
|---|--|
| Detection Modes | UV-Vis absorbance Fluorescence intensity Luminescence Fluorescence polarization Time-resolved fluorescence |
| Read Methods | End point, kinetic, spectral scanning, well-area scanning |
| Microplate Types | 6- to 384-well plates |
| Other Labware Supported | Agilent BioTek Take3 microvolume plates |
| Temperature Control | 4-Zone Incubation to 70 °C ("M2" configurations) or to 45 °C (all other configurations) |
| Shaking | Linear, orbital, double orbital |
| Software | Agilent BioTek Gen5 data analysis software Agilent BioTek Gen5 Secure software enables 21 CFR Part 11 compliance (option) |
| Automation | Agilent BioTek BioStack microplate stacker and third-party automation compatible Agilent BioTek BioSpa 8 automated incubator compatible |
| CO ₂ and O ₂ Control (Option) | Range: 0–20% (CO ₂); 1–19% (O ₂) Control resolution: ± 0.1% (CO ₂ and O ₂) Stability: ± 0.2% at 5% CO ₂ ; ± 0.2% at 1% O ₂ Models for both CO ₂ and O ₂ , or CO ₂ only, are available |
| Absorbance | |
| Light Source | Xenon flash |
| Detector | Photodiode |
| Wavelength Selection | Monochromator |
| Wavelength Range | 230–999 nm, 1 nm increments |
| Monochromator Bandwidth | 4 nm (230–285 nm), 8 nm (> 285 nm) |
| Dynamic Range | 0–4.0 OD |
| Path Length Correction | Yes |
| Monochromator Wavelength Accuracy | ± 2 nm |
| Monochromator Wavelength Repeatability | ± 0.2 nm |
| OD Accuracy | < 1% at 3.0 OD |
| Reading Speed (Kinetic) | 96 wells: 11 s 384 wells: 22 s |

| Fluorescence Intensity | |
|----------------------------|--|
| Light Source | Xenon flash |
| Detector | PMT for monochromator system PMT for filter system |
| Wavelength Selection | Quad monochromators (top/bottom) Filters (top) |
| Wavelength Range | Monochromators: 250–700 nm (900 nm option) |
| Monochromator Bandwidth | Fixed: 16 nm Variable, from 9 to 50 nm, in 1 nm increments ("M2" configurations) |
| Dynamic Range | 7 decades |
| Sensitivity | Filters: Fluorescein 0.25 pM (0.025 fmol/well, 384-well plate) Quad monochromator: Fluorescein 2.5 pM (0.25 fmol/well, 384-well plate)–top Fluorescein 4 pM (0.4 fmol/well, 384-well plate)–bottom |
| Reading Speed (Kinetic) | 96 wells: 11 s 384 wells: 22 s |
| Luminescence | |
| Sensitivity | Monochromators: 20 amol ATP Filters: 10 amol ATP |
| Fluorescence Polarization | |
| Light Source | Xenon flash |
| Detector | PMT |
| Wavelength Selection | Filters |
| Wavelength Range | 280–700 nm (850 nm option) |
| Sensitivity | 2 mP standard deviation at 1 nM fluorescein |
| Time-Resolved Fluorescence | |
| Light Source | Xenon flash |
| Detector | PMT |
| Wavelength Selection | Filters (top) |
| Sensitivity | < 40 fM |
| Reagent Dispensers | |
| Supported Detection Modes | All modes |
| Number | 2 syringe pumps |
| Supported Labware | 6- to 384-well microplates |
| Dead Volume | 1.1 mL, with backflush |
| Dispense Volume | 5–1,000 μ L in 1 μ L increments |
| Dispense Accuracy | \pm 1 μ L or 2% |
| Dispense Precision | < 2% at 50–200 μ L |
| Physical Characteristics | |
| Power | 130 W maximum consumption |
| Dimensions | 37.5 cm W x 46.4 cm D x 33 cm H (14.75" W x 18.25" D x 13" H) |
| Weight | < 24.95 kg (55 lb) |

Configurations

| Part Number | SH1M | SH1MG | SH1F | SH1FG | SH1MF | SH1MFG | SH1M2F | SH1M2FG | SH1M2 | SH1M2G |
|---|------|-------|------|-------|-------|--------|--------|---------|-------|--------|
| Temperature Control to 45 °C | • | • | • | • | • | • | | | | |
| Temperature Control to 70 °C | | | | | | | • | • | • | • |
| Variable-Bandwidth Monochromator-Based Fluorescence Intensity | | | | | | | • | • | • | • |
| Monochromator-Based Fluorescence Intensity | • | • | | | • | • | | | | |
| Monochromator-Based UV-Vis Absorbance | • | • | | | • | • | • | • | • | • |
| Monochromator-Based Time-Resolved Fluorescence (Secondary) | • | • | | | • | • | • | • | • | • |
| Full-Light Luminescence | • | • | • | • | • | • | • | • | • | • |
| Filter-Based Fluorescence Intensity | | | • | • | • | • | • | • | | |
| Filter-Based Fluorescence Polarization | | | • | • | • | • | • | • | | |
| Filter-Based Time-Resolved Fluorescence | | | • | • | • | • | • | • | | |
| Filter-Based Luminescence | | | • | • | • | • | • | • | | |
| Gen5 Data Analysis Software | • | • | • | • | • | • | • | • | • | • |
| Gas Controller Compatible | | • | | • | | • | | • | | • |

All configurations are compatible with the Agilent BioTek dual-reagent injector module, sold separately.

www.agilent.com/lifesciences/biotek

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This information is subject to change without notice.

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