Immunochromato-Reader C10066 SERIES

OVERVIEW

The C10066 Series Immunochromato-Readers are designed to make rapid quantitative measurements of color and fluorescence intensity of immunochromatographic reagents that use red/blue-based fluorescent particles as labels.

Since measurement data is saved as a CSV file, it can be analyzed on commercially available spreadsheet software, and calibration curve and time-course graphs then easily drawn.
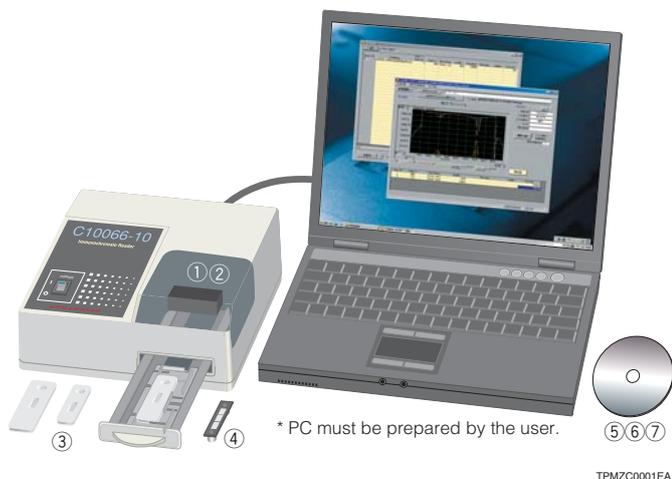
The C10066 Series Immunochromato-Readers are optimal tools for R&D and quality control of immunochromatographic reagents.

APPLICATIONS

● **Immunochromatography reagent**
- • **Development**
- • **Quality control**

HAMAMATSU

P H O T O N   I S   O U R   B U S I N E S S

Immunochromato Reader

FEATURES

* PC must be prepared by the user.

TPMZC0001EA

① High-sensitivity measurement with high repeatability

The C10066 Series Immunochromato-Readers acquire highly reliable data with high measurement reproducibility and so provide powerful support for developing quantitative reagents. The C10066-10 can measure even low-intensity colors that are very difficult to check visually, making it a powerful tool for developing high-sensitivity reagents. For development of fluorescent reagents, we recommend using the C10066-50.

② Red-based color line and blue-based color line can be measured with a single unit.

Supports a wide range of reagents such as for reagent development.

* The two colors cannot be measured simultaneously.
* This function applies only to the C10066-10.

③ Compatible with different reagent housing configurations

The supplied flexible tray fits various reagent kit housings just by adjusting its holders. This flexible tray can also be used with dip type reagent kit. (sold separately)

Dropping section

Reagent kit housing

Flexible tray

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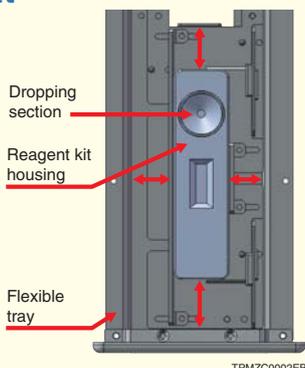
### ④ Color sample provided to check the C10066-10 main unit allows daily and periodic inspections.
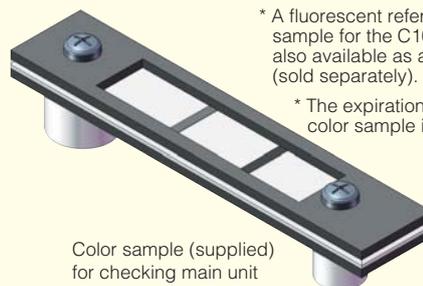
* A fluorescent reference color sample for the C10066-50 is also available as an option (sold separately).

* The expiration date for the color sample is one year.

Color sample (supplied) for checking main unit

⑤ Automatic color / fluorescence lines position detection and color / fluorescence intensity calculation (mABS) (a.u.)

* Color line intensity is called absorbance.

All measurements including the detection of color and fluorescence lines and the calculation of color and fluorescence intensity are automatically performed to acquire highly reliable data. Profile data on the color and fluorescence intensity can be stored as a record of the reaction state.
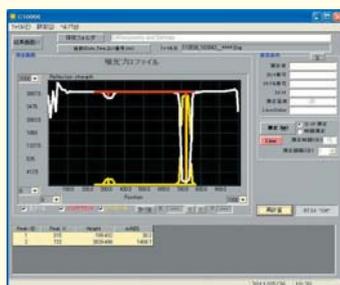
* Not possible to measure two colors simultaneously.

⑥ Calibration curve function can be calculated

Calculated calibration curve function converts color and fluorescence intensity to concentration data.

● Calibration curve graph

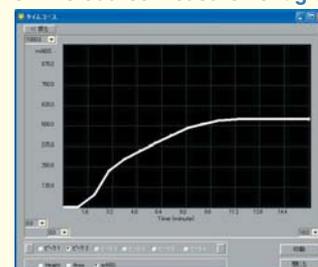### ⑦ Lot measurement and time-course measurement modes selectable

Lot measurement mode saves single lot data lists as CSV files that can then be processed with commercially available spreadsheet software.
Time-course measurement mode monitors how the color and fluorescence intensity changes over time after dropping a sample onto a reagent kit. This allows finding the difference in reaction speed between material lots.
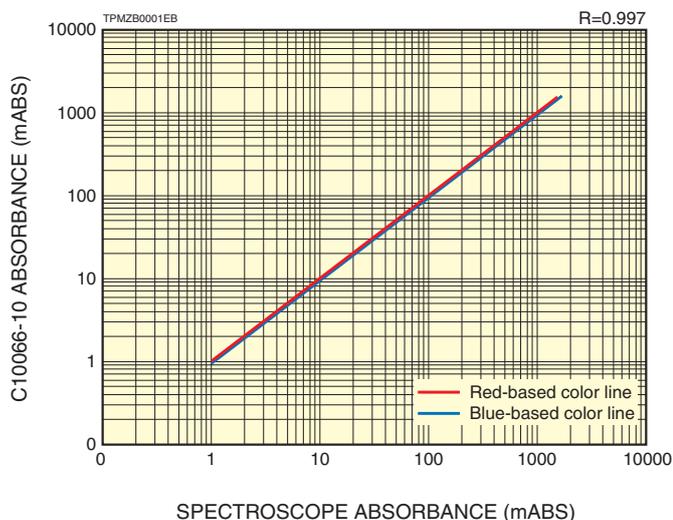
● Lot measurement data list

● Time-course measurement graph

CHARACTERISTICS

● **Sensitivity characteristics (C10066-10 vs. spectroscope)**

SPECTROSCOPE ABSORBANCE (mABS)

● **Sensitivity characteristics (C10066-50)**

FLUORESCENT DYE AMOUNT (mg/ml)
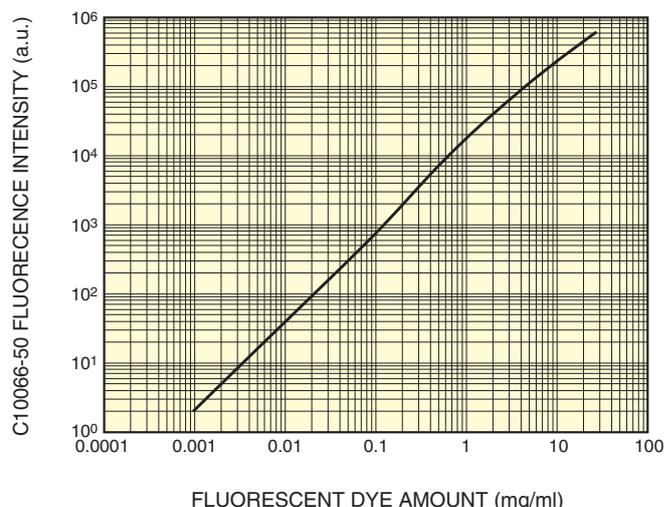
* Sensitivity characteristics were measured by adjusting the excitation light intensity to switch the fluorescence sensitivity.

SPECIFICATIONS

MAIN UNIT

Parameter		C10066-10	C10066-50	Unit
Input voltage (AC)		100 to 240		V
Power consumption	Max.	3		VA
Interface		USB 2.0 (cable supplied) or RS-232C (dedicated cable optional)		—
Light source		Green LED / Red LED	UV LED	—
Light detection		Silicon photodiode		—
Measurement object		Red-based color line / Blue-based color line	Fluorescence color line (excitation light: 375 nm, fluorescence: 615 nm) *1	—
Dimensions (W × H × D)		215 × 92 × 235 (excluding projecting parts)		mm
Weight		1.6		kg

SOFTWARE (for operation on PC)

Parameter		C10066-10	C10066-50	Unit
Compatible OS		Windows® 10 (32 bit / 64 bit)		—
Program	Measurement	Lot measurement, time-course measurement (30 second interval / 60 second interval)	Lot measurement, time-course measurement (60 second interval)	—
	Analysis	Calibration curve function, concentration conversion		—

MAIN UNIT

Parameter		C10066-10	C10066-50	Unit
Number of measurement lines	Max.	6		Lines
Measurement line interval (center to center)	Min.	3		mm
Measurement line width		0.8 to 1.2		mm
Measurable range	Max.	3 × 20		mm
Sensitivity (absorbance)	Min.	5	—	mABS
	Max.	800	—	mABS
Fluorescence intensity resolution		—	12	bit
Accuracy (measurement reproducibility, difference between units) *2	Max.	3 % CV (at +25 °C)		—
Ambient operating temperature		+15 to +30		°C
Ambient operating humidity		Below 70		%
Storage temperature		-20 to +45		°C
Storage humidity		Below 70		%

COMPATIBLE REAGENT SIZE

Parameter	C10066-10	C10066-50	Unit
Reagent kit housing (W × H × D)	30 × 8 × 95 (See "Accessories" on next page for details.)		mm
Dip type reagent kit strip (W × D)	10 × 90 (See "Sold separately" on next page for details.)		mm

NOTE: *1 Please contact us if you need another wavelengths.   *2 When measured with standard sample.
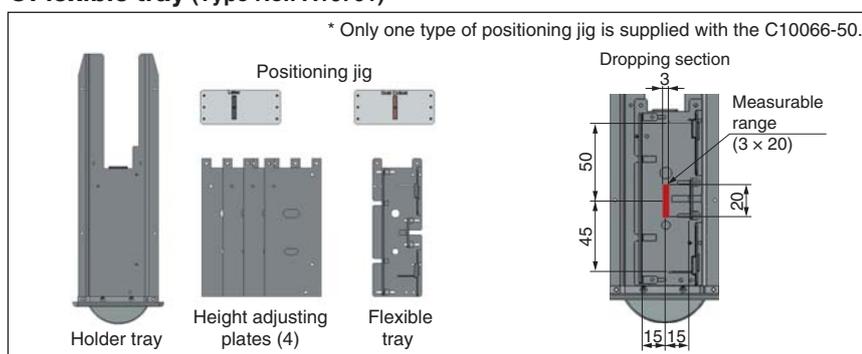
Immunochromato Reader

DIMENSIONAL OUTLINE (Unit: mm)

215

235

92

C10066-10
Immunochromato Reader

POWER

FRONT VIEW

TOP VIEW

REAR VIEW
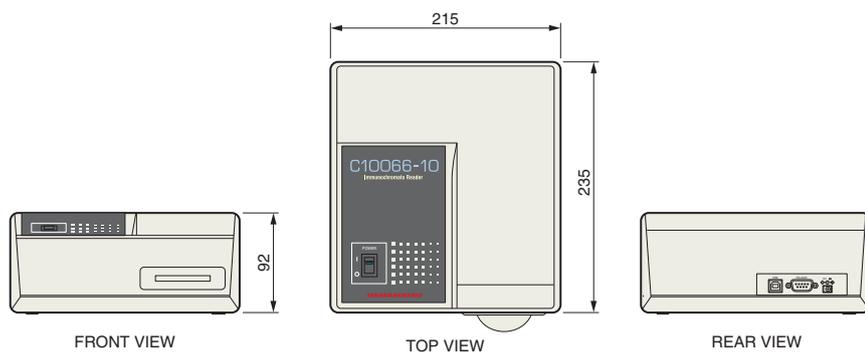
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* The C10066-50 is identical in dimensions to the C10066-10.

ACCESSORIES

●Flexible tray (Type No.: A10791)

* Only one type of positioning jig is supplied with the C10066-50.

Positioning jig

Dropping section

3

Measurable range (3 × 20)

50

20

45

15 15

Holder tray

Height adjusting plates (4)

Flexible tray

●Color sample for checking main unit (Type No.: A10792)

* This is only for the C10066-10.

●Dedicated AC adapter (Type No.: A14857)
* Cable length: AC side 1800 mm
  DC side 1220 mm

●USB cable (Type No.: A10796)
* Cable length: 1500 mm

●CD-ROM
(includes software and instruction manual)

●Setup guide

SOLD SEPARATELY

●Dip type holder (Type No.: A10793)

Dropping Section

3

Measurable Range (3 × 20)

45

20

45

10
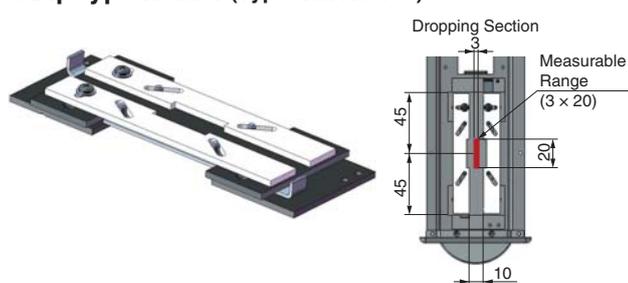
●Fluorescence reference color sample
(Type No. A15924)

Use this color sample for daily and periodic inspections of the C10066-50.

●Dedicated RS-232C cable
(Type No.: A10794)

* Cable length: 1500 mm;
  General-purpose RS-232C cables cannot be used.

●Custom holders
We design and manufacture custom holders that fit customers' reagent kit housings.

* This unit is not a medical device. Do not use it for medical diagnosis and treatment.
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