Fit your life,
with our FIT

'Eiken'

OC-SENSOR
Ceres

COMPACT, MULTIFUNCTIONAL & HIGH PRECISION

Bringing Central Laboratories Quality into your Local Clinic/Hospital

OC-SENSOR is the leading Faecal Immunochemical Test.
With an extensive body of evidence supporting the platform,
OC-SENSOR is recognized worldwide as the standard in
colorectal cancer screening and symptomatic triage pathways.

When launched in 1989, OC-SENSOR became the first automated
faecal occult blood test. Through a continuous platform of innovation,
OC-SENSOR has built a reputation of quality and reliability,
which in-turn has facilitated the development of regional and national
colorectal cancer screening and primary care in over 45 countries.

Building upon this experience, OC-SENSOR Ceres encompasses
all the technological advances you would expect from the 8th generation
analyser within an accessible, compact and simple to use design.
With comparable analytical performance to the high throughput analysers,
OC-SENSOR Ceres introduces random access sample processing of multiple
test parameters and reports quantitative results in as little as 8 minutes.

OC-SENSOR Ceres will revolutionize faecal testing, to better support
decision making in primary care and bring reassurance to patients.

Increasing Demand for Faecal Testing of Serious Bowel Disease

Faecal Immunochemical Test (FIT) and Faecal Calprotectin (FCa) are non-invasive tests that aid in the detection of serious bowel disease in symptomatic patients.

Due to the limited endoscopic resources and access to healthcare systems, FIT and FCa have become valuable markers for informed decision making in the clinical pathway. This enables patients at highest risk to be identified swiftly and reduce the number of unnecessary colonoscopies.

Sampling Bottle is common for FIT, FCa and more test parameters.
Sample preparation is completed in a single stool collection.

FIT   FCa

"Ceres" is derived from the smallest dwarf planet in our solar system.
Its orbit is also very short, representing compactness and flexibility.

OC-SENSOR Ceres
Enhances Clinical Pathways in Outpatient Settings

for streamlined detection of patients with serious bowel disease

By patients bringing samples collected at home, faecal testing within an outpatient setting allows a decision to be made for referral or further investigation following a single consultation by General Practitioner (GP).

8-11 min

Simplified Operation

Operation is simple: just load the samples and press the start button. Healthcare professionals can easily perform quantitative faecal test, even if they are not familiar with analyser operation.

1 Load Samples
Quick start up within 1 min
Continuous loading available

2 Press Start
Order test items

3 Report Result
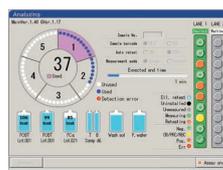1st Result FIT in 8 min
FCa in 10 min
FIT / FCa in 11 min

Simple to Use Design

The simplicity known from the previous compact model of OC-SENSOR stays with OC-SENSOR Ceres. The new OC-SENSOR Ceres has an improved operation screen design and highly sensitive touch sensor, making it simpler and easier to use.

MENU Screen

Analysis
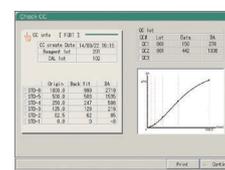Displays sample, cuvettes and reagent status on the assay screen

QC Measurement
QC measurement is performed with a graphical display

Set Reagents
Ensures reagents matching with LOT, bottle ID, and Expiration date

Calibration
Check calibration curves on the screen

High-End Performance in a Compact Body

OC-SENSOR Ceres achieves the analytical performance comparable to the high-end model, OC-SENSOR PLEDIA, in a local laboratory environment.

*Examples of measurement with FIT are shown below. Measurements and calculations were performed based on Clinical Laboratory Standard Institute (CLSI) guidelines.

Measurement Range

Analyser	LoD	LoQ
OC-SENSOR Ceres	1.2 μg/g (6 ng/mL)	4 μg/g (20 ng/mL)
OC-SENSOR PLEDIA	1.8 μg/g (9 ng/mL)	5 μg/g (25 ng/mL)

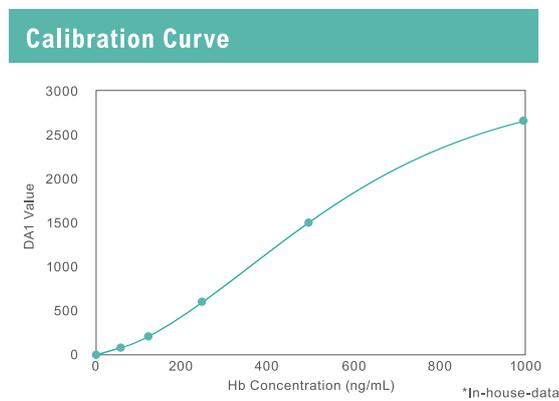*In-house data

OC-SENSOR Ceres has achieved the lowest limit of detection and quantification among the OC-SENSOR series.

Calibration Curve

*In-house-data

The system enables measurement with high linearity from LoQ to the upper limit of measurement.

Repeatability

Analyser	Mean(ng/mL)	SD	CV
OC-SENSOR Ceres	73.9	0.9	1.2 %
	145.7	1.6	1.1 %
	453.0	3.4	0.8 %
OC-SENSOR PLEDIA	71.4	1.1	1.5 %
	148.7	2.0	1.4 %
	450.2	8.1	1.8 %

*In-house data, OC-FIT Controls

OC-SENSOR Ceres has achieved high reproducibility comparable to OC-SENSOR PLEDIA.

Hook Effect

S6 DA1

*In-house-data
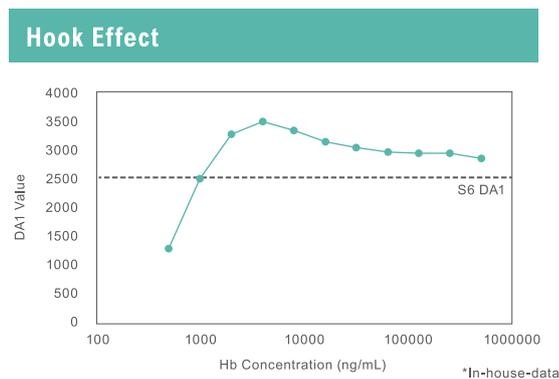
The measurement value of sample with 500000 ng Hb/mL will not fall below the upper limit of measurement range.

Long-Term On-Board Stability

OC SENSOR Ceres has introduced a build-in refrigerator. There is no need to store back the reagents in a refrigerator after use. Reagents are stable for 4 weeks on-board, which is a sustainable option for those laboratories with a small number of samples.

Prozone Recognition
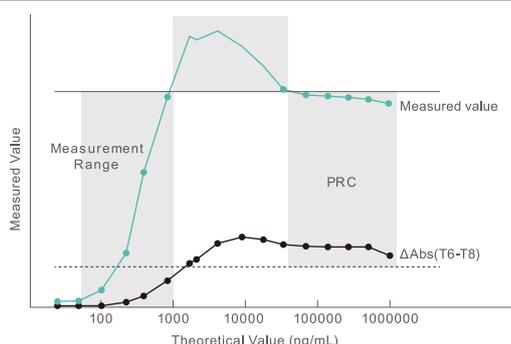
The data shown in the figure is an example of OC-SENSOR PLEDIA.

If the ΔAbs of the photometric point in the initial reaction phase is above the lower limit of the PRC and the measured value is below the upper limit of measurement, the sample is recognized as within the prozone (PRC region). Prozone of highly concentrated sample is checked through the Primary Rate Check (PRC) method.

Options to Ensure the Reliability of Test Results

OC-SENSOR Ceres is equipped with functions comparable to high-end models. In addition to test order and results output via LIMS bi-directional connection, QC results can be displayed in X-R control chart. Managing reagent lots and expiration dates by barcode makes it easier to conform to ISO 15189 standards.

Enhanced Barcode System

The information is automatically read by the built-in barcode reader; Patient ID for Sampling Bottles, lot number, expiry date and test item for reagents.

Portable barcode reader

Portable barcode reader is optionally available for:
• Operator ID
• Calibrator lot number, expiry date and test item
• QC lot number, expiry date, test item and reference range

QC Measurement & Monitoring

Simultaneous Measurement of up to 3 different QC levels are possible. Management for instrument and reagent conditions are monitored through the X-R QC chart, auto CV calculation and a host of other functions.
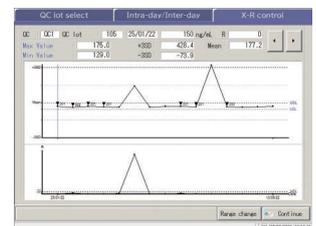
Digital Connectivity with DATA Management

OC-SENSOR Ceres supports bi-directional interface for real-time data reporting to Laboratory Information Management System (LIMS).

Hospital or GPs- Network

Clinical Laboratories

Laboratory Information Management System
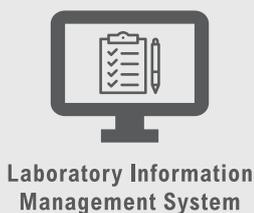
DATA Management

Patient ID, Results & QC DATA

Operator ID
(Operator authorization)

Reagent Lots & EXP. Date by the automatic barcode reading system

Portable Barcode reader is optionally available for Control, Calibrator and Operator ID.

Reagents

Faecal Immunochemical Test (FIT)

OC-SENSOR FIT

OC-FIT Calibrator
OC-FIT Control LV1/LV2/LV3

Faecal Calprotectin Test (FCa)

OC-FCa Reagent

OC-FCa Calibrator
OC-FCa Control LV1/LV2/LV3

Specifications

General	Product name	OC-SENSOR Ceres
	Principle	Latex agglutination immunoturbidity
Analysis	Test items	Fecal Immunochemical Test, Fecal Calprotectin
	Throughput	Up to 90 tests / hour
	Calibration	Prepared liquid multipoint calibrator (6 points)
	Hook effect	Prozone of highly-concentrated samples is detected through the Primary Rate Check (PRC) method.
	Barcode	Rack barcode, Sample barcode, Reagent barcode, QC barcode and Calibrator barcode.
Sample	Sample run capacity	10 samples x 2 racks, Continuous loading
	Retest	Automatic retest and dilution retest
	Dilution ratio	Dilution ratio: x 1, x 10, x 20, x 100, x 200, x 400
	QC materials	Liquid controls : LV1 (Middle), LV2 (High), LV3 (Low)
	Sample dispense	Sampling nozzle with liquid level detection sensor and nozzle cleaning function
Reagent	Reagent loading capacity	3 reagent sets (R1, R2) and 2 sample diluent buffers
	Refrigerating system	Peltier cooling system surrounding reagent storage area (working for 24 hours)
	Reagent dispense	Reagent nozzle with liquid level detection sensor and nozzle cleaning function
Reaction	First result	FIT : 8 min, FCa : 10 min, FIT and FCa : 11 min
	Cuvette	Disposable 11-sample cells / (5 cuvettes can be loaded)
	Mixing mechanism	Mixer rotating system with cleaning function
	Thermal system	Silicon rubber heating system for reaction table
	Light Source / Detector	LED (Wavelength 660 nm) / Photodiode
	Tank	Purified water tank : 500 mL and Wash solution tank : 500 mL, Drain tank : 5 L
Interface	Data input	Color LCD touch panel (8.4 inch)
	Memory capacity	Sample : 5000 tests, QC material : 1000 tests, CC data : 10 calibration per items
	Data output	Thermal printer, RS-232C, USB, Ethernet connection
	Security	Programmable operator authorization
	Optional reader	Two-dimensional code reader and portable barcode reader
Environmental Features	Dimensions	W 360 mm x D 625 mm x H 545 mm
	Weight	43 kg
	Operating conditions	Temperature: 15 - 30 °C (± 2 °C during analysis), Humidity: 20 - 80 % (no condensation)
	Power supply/Heat emission	AC 100-240 V, 630 VA, 50/60 Hz, 541.87 kcal/hour

Dimensions

545 mm
360 mm

892 mm
570 mm
625 mm
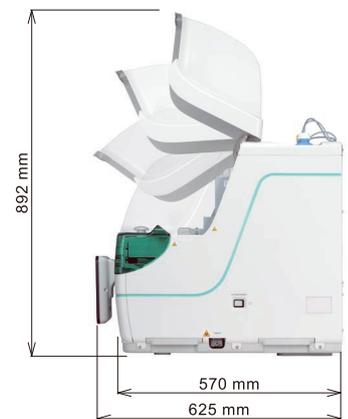
Visit Our Website

Find more information about OC-SENSOR on www.eiken.co.jp

- What is FIT?
- What is Fecal Calprotectin?
- Our experiences of FIT screening
- Other biomarkers for colorectal cancer and IBD