



Cow-side measurement of ionized calcium made possible!

LAQUAtwin

Compact Bovine Blood iCa Checker



Calcium is an important macromineral for dairy cows. Measurement of iCa cow-side can be of great value to veterinarians and producers. An innovative and lower cost instrument could help with more timely decisions and avoid submission of blood samples to a laboratory.



Current situation

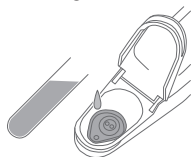
The dairy veterinary field is progressively studying subclinical hypocalcemia. To detect this condition real time using the iCa Checker can make a significant improvement in an animal's health.



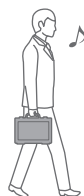
HORIBA iCa checker performance ...

Quick and Easy measurements

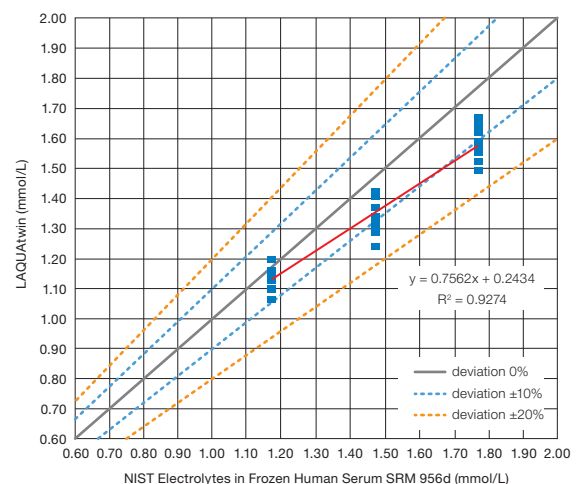
- (1) Place a drop of sample and close the light cover
- (2) Press MEAS button
- (3) The measurement is complete when the ☺ is lit up



Portable and results are complete in seconds on-site



Measurement results shows high correlation with NIST standard.



*An internal investigation

* In Japan, only a qualified person is allowed to draw the blood as the act itself is considered as a form of medical practice

Measurement procedure

Sampling and measurement on site is possible with this pocket meter!

Calibration and measurement in 3 minutes.

Drawing Blood

Startup iCa Checker

2 points calibration

Measurement

To the Veterinarian for Diagnosis

Measurement of the whole blood as it is.

Power On

Just place a drop of sample.



Specification

Model	LAQUAtwin-Ca-11C
Part No.	3200772940
Target	Calcium ions (Ca ²⁺)
Measurement principle	Ion Electrode Method
Minimum sample volume	More than 0.3 mL
Measurement range	0.1 to 5.0 mmol/L
Resolution	0.1 mmol/L *1
Calibration	2 points calibration (1.25 mmol/L, 2.50 mmol/L)
Accuracy *2	±20% of reading value
Waterproof	IP67 (no failure when immersed in water at a depth of 1m for 30 min) *3
Display	Custom (monochrome) digital LCD with backlight
Operating environment	Temperature: 5°C to 40°C Humidity: 85% relative humidity or less (no condensation)
Power	CR2032 batteries (x2)
Battery life	Approx. 150 hours *4
Material	ABS epoxy (main material)
Dimensions	164×29×20 mm (excluding projections)
Mass	Approx. 50 g (excluding batteries)

*1 It is possible to change the resolution to 0.01 mmol/L. (This value is reference value.)

Refer to page 3 of this manual for the resolution setting.

*2 The accuracy of agreement between a measured value and an actual value of standard reference material after 2 points calibration using Y052L and Y052H standard solutions.

It is obtained under the following conditions.

- NIST Electrolytes in Frozen Human Serum SRM 956d was used as a standard reference material.

- The calibration and measurement are performed at the same temperature.

- The error of standard solutions and rounding error (±1 digit) are not included.

*3 The meter cannot be used underwater.

*4 When backlight is used, battery life will shorten.

Items in package

Items	Quantity
Sensor	1
Meter	1
Batteries	2
Standard solution 1.25mmol/L	25 mL×2 bottles
2.50mmol/L	25 mL×2 bottles
Cleaning solution	250 mL×3 bottles
Wash bottle for cleaning solution	1
Instruction manual (Operation)	1
Instruction manual (Before use)	1
Quick manual	1
Carrying case	1

Consumable parts sold separately

Items	Specifications	Part No.
Sensor S051	—	3200772945
Standard solution kit Y053	1.25 mmol/L, 25 mL×2 bottles	3200774921
	2.50 mmol/L, 25 mL×2 bottles	
	Cleaning solution #251 250 mL×3 bottles	

IMS

The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System OHSAS18001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



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