ACCU-CHEK® Instant

TESTS

REF 07819382

(EN) **Suitable for self-testing**

Intended Use

The Accu-Chek Instant test strips with the Accu-Chek Instant and Accu-Chek Instant S meters are intended to quantitatively measure glucose in fresh capillary whole blood from the finger, palm, forearm, and upper arm as an aid in monitoring the effectiveness of glucose control.

The Accu-Chek Instant test strips with the Accu-Chek Instant and Accu-Chek Instant S meters are intended for in vitro diagnostic self-testing by people with diabetes.

The Accu-Chek Instant test strips with the Accu-Chek Instant and Accu-Chek Instant S meters are intended for in vitro diagnostic use by healthcare professionals in clinical settings. Venous, arterial, and neonatal blood testing is limited to healthcare professional use.

This system is not for use in diagnosis of diabetes mellitus, nor for testing neonate cord blood samples.

Consumer Information

Warning: Choking hazard. Small parts. Keep away from children under the age of 3 years.

Contents of the pack

Pack containing test strips and package inserts.

All components of the pack can be discarded in domestic waste. Discard used test strips according to local regulations. If you have any questions, contact Roche.

Test strip storage and handling

- Store the test strips at temperatures between 4 and 30 °C. Do not freeze the test strips.
- Use the test strips at temperatures between 4 and 45 °C.
- Use the test strips between 10 and 90 % humidity. Do not store the test strips in high heat and moisture areas such as the bathroom or kitchen.
- Store the unused test strips in their original test strip container with the cap closed.
- Close the test strip container tightly immediately after removing a test strip to protect the test strips from humidity.
- Use the test strip immediately after removing it from the test strip container.
- Discard the test strips if they are past the use by date. Expired test strips can produce incorrect results. The use by date is printed on the test strip box and on the label of the test strip container next to . The test strips can be used until the printed use by date when they are stored and used correctly. This applies for test strips from a new, unopened test strip container and for test strips from a test strip container that has already been opened.

Performing a Blood Glucose Test

Refer to the meter User's Manual for instructions on obtaining a blood sample and performing a blood glucose test.

Understanding Test Results

The normal fasting glucose level for a non-diabetic adult is below 100 mg/dL (5.6 mmol/L).[1] The normal glucose level for a non-diabetic adult 2 hours post-meal, e.g. simulated by 75 g Oral Glucose Tolerance Test (OGTT), is less than 140 mg/dL (7.8 mmol/L).[2] A criterion for the diagnosis of diabetes in adults is a fasting glucose level of 126 mg/dL or higher (7.0 mmol/L or higher) confirmed in two tests.[1,3,4] Adults with a fasting glucose level between 100 and 125 mg/dL (5.6 and 6.9 mmol/L) are defined as having impaired fasting glucose (prediabetes).[1] Other diagnostic criteria for diabetes exist. Consult your healthcare professional to determine if you have diabetes or not. For people with diabetes: Consult your healthcare professional for the blood glucose range appropriate for you. You should treat your low or high blood glucose as recommended by your healthcare professional.

Unusual test results

If **LO** is displayed on the meter, your blood glucose may be below 10 mg/dL (0.6 mmol/L).

If **HI** is displayed on the meter, your blood glucose may be over 600 mg/dL (33.3 mmol/L).

For detailed information on error messages, refer to the User's Manual.

If your blood glucose result does not match how you feel, follow these steps:

- Repeat the blood glucose test with a new test strip.
- Perform a control test as described in the User's Manual.
- Refer to the User's Manual for other causes.
- If your symptoms still do not match your blood glucose results, contact your healthcare professional.

Never ignore symptoms or make significant changes to your diabetes management program without talking to your healthcare professional.

Accu-Chek Instant Control Solution Ranges

Control 1: 30–60 mg/dL (1.7–3.3 mmol/L)

Control 2: 252–342 mg/dL (14.0–19.0 mmol/L)

Healthcare Professional Information

Sample collection and preparation by healthcare professionals

- When using the Accu-Chek Instant and Accu-Chek Instant S meters, always follow the recognised procedures for handling objects that are potentially contaminated with human material. Practice the hygiene and safety policy of your laboratory or institution.
- A blood drop is required to perform a blood glucose test. Capillary blood can be used. Venous, arterial, or neonatal blood may be used, but must be obtained by healthcare professionals.
- Take caution to clear arterial lines before the blood sample is obtained and applied to the test strip.
- The system has been tested with neonatal blood. As a matter of good clinical practice, caution is advised in the interpretation of neonate blood glucose values below 50 mg/dL (2.8 mmol/L). Follow the recommendations for follow-up care that have been set by your institution for critical blood glucose values in neonates.
- To minimise the effect of glycolysis, venous or arterial blood glucose tests need to be performed within 30 minutes of obtaining the blood samples.
- Avoid air bubbles when using pipettes.
- Capillary, venous, and arterial blood samples containing these anticoagulants or preservatives are acceptable: EDTA, lithium heparin, or sodium heparin. Anticoagulants containing iodoacetate or fluoride are not recommended.
- Refrigerated samples should be brought to room temperature slowly prior to testing.

Additional information for healthcare professionals

If the blood glucose result does not reflect the patient's clinical symptoms, or seems unusually high or low, perform a control test. If the control test confirms that the system is working properly, repeat the blood glucose test. If the second blood glucose result still seems unusual, follow facility guidelines for further action.

Discard components of the pack per facility guidelines. Consult local ordinances as they may vary by country.

Limitations

- Lipemic samples (triglycerides) >1,800 mg/dL (>20.3 mmol/L) may produce elevated blood glucose results.
- Do not use this system during xylose absorption test.
- Do not use this system if you are undergoing intravenous administration of ascorbic acid.
- If peripheral circulation is impaired, collection of capillary blood from the approved sample sites is not advised as the results might not be a true reflection of the physiological blood glucose level. This may apply in the following circumstances: Severe dehydration as a result of diabetic ketoacidosis or due to hyperglycaemic hyperosmolar non-ketotic syndrome, hypotension, shock, decompensated heart failure NYHA Class IV, or peripheral arterial occlusive disease.
- Hematocrit should be between 10 and 65 %. Ask your healthcare professional if you do not know your hematocrit.
- This system has been tested at altitudes up to 3,094 metres.

Performance Characteristics

The Accu-Chek Instant system complies with the requirements of ISO 15197:2013 (In vitro diagnostic test systems – Requirements for blood glucose monitoring systems for self-testing in managing diabetes mellitus).

Calibration and traceability: The system (meter and test strips) is calibrated with venous blood containing various glucose concentrations as a calibrator. The reference values are obtained using the hexokinase method which is calibrated using the ID-GCMS method. The ID-GCMS method as the method of highest metrological quality (order) is traceable to a primary NIST standard. Using this traceability chain, the results obtained with these test strips for control solutions can also be traced back to the NIST standard.

Detection limit (lowest value displayed): 10 mg/dL (0.6 mmol/L) for the test strip

System measuring range: 10–600 mg/dL (0.6–33.3 mmol/L)

Sample size: 0.6 µL

Test time: <4 seconds

ACCU-CHEK® Instant

ACCU-CHEK® Instant

10000104001-0720
10000104001(01)-0720

Roche USA – 82628
V1/1 – 10000104001_
10000104001(01) – Black

VIOLATOR FOLDED GENIII 7010404

Approved according to SOP.04.07.GPL.0004 **Production**

The Signature will not be printed!

LAN dworatzk - Jul 30, 2020

NA andrewc2 - Jul 30, 2020

PM/LAB andrewc2 - Jul 30, 2020

GD/LAY clarkj42 - Jul 30, 2020

System accuracy:

System accuracy results for glucose concentrations less than 100 mg/dL (less than 5.55 mmol/L)

within ±5 mg/dL (within ±0.28 mmol/L)	within ±10 mg/dL (within ±0.56 mmol/L)	within ± 15 mg/dL (within ±0.83 mmol/L)
153/162 (94.4 %)	162/162 (100 %)	162/162 (100 %)

System accuracy results for glucose concentrations equal to or greater than 100 mg/dL (equal to or greater than 5.55 mmol/L)

within ±5 %	within ±10 %	within ±15 %
341/438 (77.9 %)	435/438 (99.3 %)	438/438 (100 %)

System accuracy results for glucose concentrations between 39 mg/dL (2.2 mmol/L) and 482 mg/dL (26.7 mmol/L)

within ±15 mg/dL or within ±15 % (within ±0.83 mmol/L or within ±15 %)
600/600 (100 %)

Repeatability:

Mean value	[mg/dL]	41.9	84.7	137.9	216.3	353.2
	[mmol/L]	2.3	4.7	7.6	12.0	19.6
Standard deviation	[mg/dL]	1.5	2.1	3.1	5.3	8.4
	[mmol/L]	0.1	0.1	0.2	0.3	0.5
Coefficient of variation [%]		—	—	2.2	2.5	2.4

Intermediate precision:

Mean value	[mg/dL]	46.1	118.4	299.9
	[mmol/L]	2.6	6.6	16.6
Standard deviation	[mg/dL]	1.7	3.4	6.0
	[mmol/L]	0.1	0.2	0.3
Coefficient of variation [%]		—	2.9	2.0

Performance assessment by the user: A study evaluating glucose values from fingertip capillary blood samples obtained by 101 lay persons showed the following results:

- For glucose concentrations less than 100 mg/dL (less than 5.55 mmol/L), 100 % of the test results were within ±15 mg/dL (within ±0.83 mmol/L) of the results obtained through laboratory testing.
- For glucose concentrations equal to or greater than 100 mg/dL (equal to or greater than 5.55 mmol/L), 96.7 % of the test results were within ±15 % of the results obtained through laboratory testing.

Test principle: The enzyme on the test strip, a FAD-dependent glucose dehydrogenase (GDH) expressed in *A. oryzae*, converts the glucose in the blood sample to gluconolactone. This reaction creates a harmless DC electrical current that the meter interprets for the blood glucose result. The sample and environmental conditions are evaluated using AC and DC signals.

These test strips deliver results that correspond to blood glucose concentrations in plasma as per the recommendation of the International Federation of Clinical Chemistry and Laboratory Medicine (IFCC).[5] Therefore, the meter displays blood glucose concentrations that refer to plasma although whole blood is always applied to the test strip.

Reagent composition¤

Mediator	6.6 %
FAD-GDH enzyme	21.3 %
Buffer	22.6 %
Stabiliser	2.3 %
Non-reactive ingredients	47.2 %

¤Minimum at time of manufacture

Note: For an explanation of symbols used and a list of references, refer to the end of this package insert.

Control and linearity test kits (if available)

Accu-Chek Instant control solution – Refer to the control solution package insert for details.

Accu-Chek Instant linearity test kit – Refer to the linearity test kit package insert for details.

Visit our website at www.accu-chek.com or contact the local Roche representative for more information.

LAST UPDATE: 2019-09

References

1 American Diabetes Association: 2. Classification and Diagnosis of Diabetes: Standards of Medical Care in Diabetes-2019. *Diabetes Care*, 42, (Suppl. 1), : S13-S28 (2019).

2 American Diabetes Association website: Diagnosing Diabetes and Learning about Prediabetes. http://www.diabetes.org/diabetes-basics/diagnosis/. Accessed April 22, 2019.

3 IDF Clinical Guidelines Task Force. Global guideline for Type 2 diabetes. Brussels: International Diabetes Federation, 2012.

4 Definition and diagnosis of diabetes mellitus and intermediate hyperglycemia: report of a WHO/IDF consultation. WHO, Geneva 2006 (ISBN 92 4 159493 4, ISBN 978 92 4 159493 6).

5 D'Orazio et al.: "Approved IFCC Recommendation on Reporting Results for Blood Glucose (Abbreviated);" *Clinical Chemistry* 51:9 1573-1576 (2005).

	Consult package insert
	Temperature limitation (store at)
	Use by (opened / unopened)
	Manufacturer
REF	Catalogue number
LOT	Batch code
IVD	In vitro diagnostic medical device
GTIN	Global Trade Item Number
SN	Serial number
CE 0123	This product fulfils the requirements of the European Directive 98/79/EC on in vitro diagnostic medical devices.
	All components of the pack can be discarded in domestic waste. Discard used test strips according to local regulations.

United Kingdom

Roche Diabetes Care Limited
Charles Avenue, Burgess Hill
West Sussex, RH15 9RY, United Kingdom
Accu-Chek Customer Careline [1)]
UK Freephone number: 0800 701 000
ROI Freephone number: 1 800 709 600
1) calls may be recorded for training purposes
Some mobile operators may charge for calls to these numbers.
www.accu-chek.co.uk
www.accu-chek.ie

CE 0123 IVD

Roche Diabetes Care GmbH
Sandhofer Strasse 116
68305 Mannheim, Germany
www.accu-chek.com

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