



NGSP Certificate
of Traceability
.....
IFCC Certificate



HbA1c-Analysis in everyday practice

The professional point-of-care solution for reliable diabetes management in lab quality: The CLOVER A1c®

Rapid tests

Laboratory diagnostics

Laboratory services

Consultation & service



We are here for you!

nal von minden

Your partner in professional rapid diagnostics

Competent and innovative

Since 1982, nal von minden GmbH has offered product quality of the highest standard, a comprehensive product portfolio and excellent customer service in the field of medical diagnostics and drug analytics. This wealth of experience, as well as direct contact with you enables us to expand and refine our product portfolio to meet your requirements. It is our goal to support you in your daily work. For this reason, we place great emphasis on individual consultations, as well as high-quality and user-friendly products. ISO certification and quality management in accordance with ISO 9001 and 13485 is further testament to our philosophy on quality.

The nal von minden all-round service

Whether your enquiry relates to systems or offers, our product specialists are on hand to help. Your satisfaction is always our focus. We offer an all-round service package, with comprehensive advice, a streamlined ordering process and fast delivery at attractive prices. We would also be happy to pay you a visit in your practice for a more de-

tailed consultation. We would like to make the way towards point-of-care diabetes management as easy as possible for you, allowing you to reap the full benefits of on-site testing.

Do you have questions regarding diabetes management with the CLOVER A1c®? Are you interested in point-of-care HbA1c measurement and our products? Should you have any queries, we are on hand to support you with help and advice.

As your long-term partner, we don't just want to satisfy you - we want to inspire you!

Your nal von minden team.

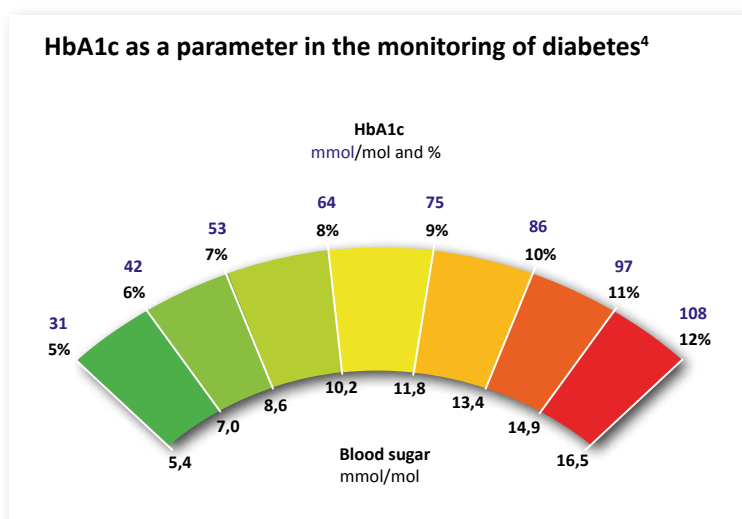
Point-of-care HbA1c-Analysis

Determine HbA1c-levels within your practice using the CLOVER A1c®

HbA1c - a marker of long-term blood sugar levels

Almost 10% of the German population are diabetics (diagnosed: 7.2%, undiagnosed: 2.1%)¹. HbA1c levels, which are indicators of long-term blood sugar levels, play an important role in the monitoring of diabetes patients. It provides information as to whether a patient's blood sugar level is satisfactory, or whether treatment needs to be adjusted.

The HbA1c level indicates the amount of glucose-bound (glycated) haemoglobin compared to 'glucose-free' haemoglobin (millimoles per mole of haemoglobin), and so reflects the overall blood glucose level. A raised HbA1c level shows that the patient's blood sugar was raised over the previous 8-12 weeks. In healthy individuals, the HbA1c level averages approximately 30 mmol/mol, or 5%².



The benefits of patient-side rapid diagnostics

In the context of raised HbA1c levels, studies have confirmed that immediate/prompt adjustments in treatment can better achieve the goal of glycaemic control. Patients also adhere to treatment recommendations better following a face-to-face appointment. These are two aspects which outline the requirements for avoiding the long-term consequences of diabetes.³



Sources:

- 1) <http://www.diabetes-deutschland.de/aktuellesituation.html>
- 2) <http://www.diabetes-ratgeber.net/Blutzucker/HbA1c-27844.html>
- 3) Miller CD, Barnes CS, Phillips LS, Ziemer DC, Gallina DL, Cook CB, et al. Rapid A1c availability improves clinical decision-making in an urban primary care clinic. *Diabetes Care* 2003;26: 1158 – 63.
- 4) <https://www.diabetes.co.uk/what-is-hba1c.html>



Use your valuable time for the patients, not for time-consuming follow-up calls or administrative tasks. With the **CLOVER A1c™**, you can establish HbA1c levels in just 5 minutes.

Diabetes management in lab quality

The CLOVER A1c® – Simple, quick and reliable

With the help of the **CLOVER A1c®**, you can determine HbA1c levels right from your practice. Lab-quality results will be available immediately. This lets you quickly establish whether the patient's treatment is successful, and allows adjustments to therapy to be decided upon during consultations. Time-consuming follow-up calls and appointments can be a thing of the past, saving valuable time and reducing the administrative load.

Your benefits with the CLOVER A1c®

Simple ✓

- HbA1c levels in three intuitive steps
- No sample preparation
- Only 4 µL capillary- or venous blood required per measurement
- Test cassette storage at room temperature
- Minimum 12 month shelf life from date of manufacture

Test procedure in three steps



Open the lid of the **CLOVER A1c®** and place a new test cassette inside.



Using the capillary tube integrated into the reagent tray, collect a **4µL blood sample...**



...and place the reagent tray into the test cassette. Begin the measurement as soon as the lid is closed. The HbA1c levels will be available after **5 minutes**.

Fast ✓

- Test results in just 5 minutes
- Capillary tube for blood collection integrated into reagent tray
- Immediate adjustment of treatment in patient consultation possible
- Improved workflow, cutting out waiting time for lab results
- Reduced administrative load:
 - No need to send sample to the lab
 - No need for follow-up appointment with patient to discuss results





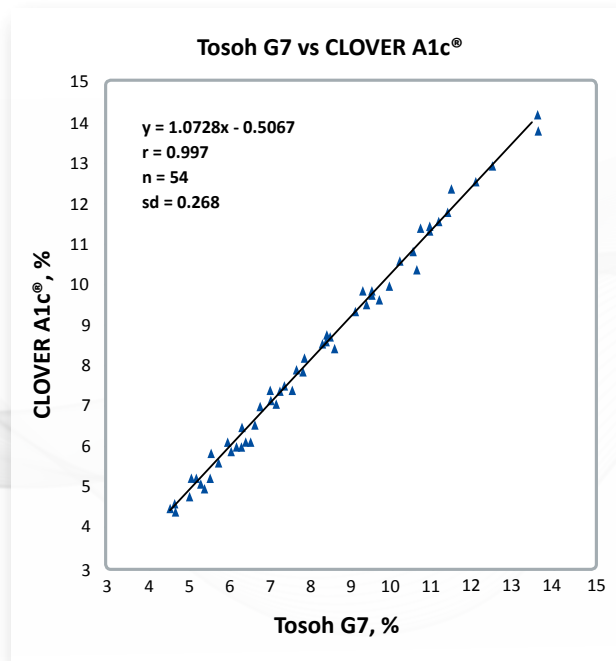
The CLOVER A1c®-System complies not only with the NGSP standardisation program, but also with IFCC. Upon request, the CLOVER A1c® HbA1c levels can also be given as a percentage, according to the NGSP standard.

Reliable ✓

- Accredited boronate-affinity method, interference free
- Lab quality results: $R^2 = 0,9837$
- Integrated error recognition for added surety
- NGSP certified
- Detectable according to the IFCC reference method
- No adulteration through anticoagulation

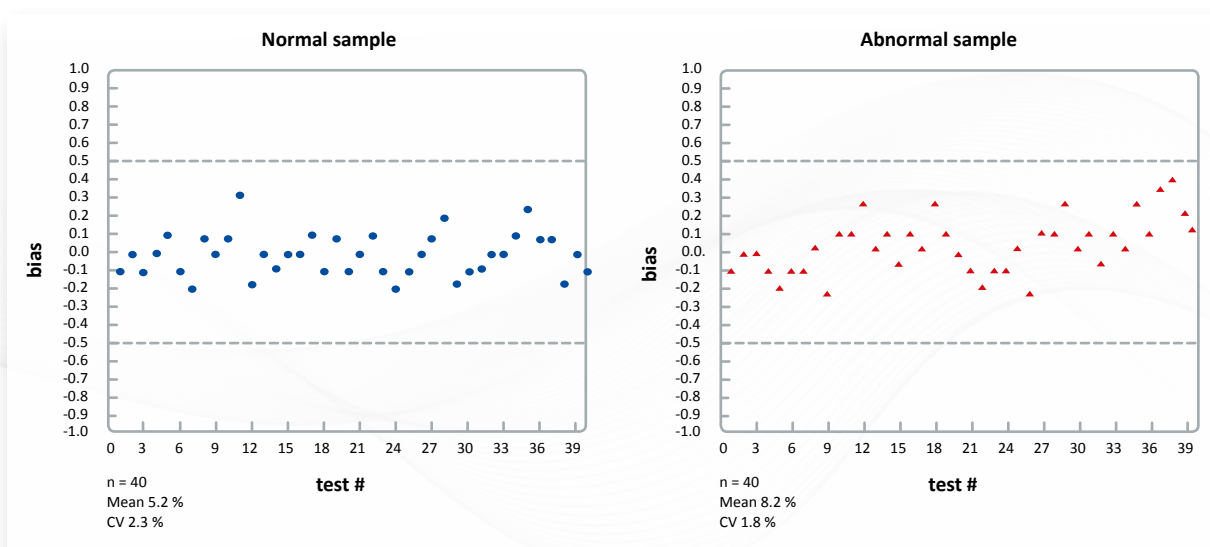
Method comparison

The CLOVER A1c®-System determines HbA1c levels with the help of the boronate-affinity method. NGSP-certified high performance liquid chromatography (HPLC, Tosoh G7) demonstrates that the system is on par with established laboratory methods. The CLOVER A1c® measurement method complies with both IFCC and NGSP standards.



Precision

To what extent the analyte values diversify - and thus the precision of the CLOVER A1c® - can be determined by repeated analyses of the same sample. As illustrated, the systematic measurement deviation remains very low with the CLOVER A1c® even after 40 HbA1c measurements, confirming the system's high level of precision and results.



CLOVER A1c®

Product overview

CLOVER A1c® Analysis Device



Analysis device for the evaluation of CLOVER A1c® test cassettes

Set includes:

1 analysis device, 1 power adapter, 5 air filters, 1 daily test cassette, 1 monthly test cassette, 1 package insert

Product code 980100

CLOVER A1c® Test cassettes



10 test cassettes for the determination of haemoglobin A1c (HbA1c%) percentages using the CLOVER A1c® analysis device

Sample: Capillary whole blood / venous whole blood with anti-coagulant

Product code 980101

CLOVER A1c® daily test cassette



1 test cassette for daily device monitoring, reusable until the expiry date

Product code 980110

BIXOLON® Printer



Thermal printer for use with the CLOVER A1c® analysis device

Product code 980120

TECHSCAN Barcode Scanner TSK-750



Barcode scanner for use with the CLOVER A1c® analysis device, such as when entering the patient ID

Product code 980121

CLOVER A1c® Self USB data cable



USB cable for connecting the CLOVER A1c® analysis device to a computer, such as for transferring test results

Product code 980122

Audit® MicroControl LQ HbA1c Bi-Level Control Kit



1x 0.5 mL control level 1 and
1x 0.5 mL control level 2

Product code 980143

Technical Data

Device	
Intended use	For measurement of haemoglobin A1c
Test format	Boronate-Affinity method
Measurement method	Reflection spectrometry
Measurement time / Test duration	5 minutes
Dimensions	200 x 198 x 139 mm
Weight	1.4 kg
Display / User interface	LCD (with backlight)
Storage capacity	200 results
Battery	Through power adapter supplied (DC 9 V-2 A)
Connection / Data transfer	via USB to PC
Port	DC 9V, USB, RS 232
Environment temperature (during use)	17-32°C
Relative humidity	10-90%
Storage temperature	10-35 °C
Wave length	415 nm (normal)
Test Cassette	
Sample volume	4 µL
Sample preparation	No preparation required; no pipettes required
Sample	Capillary whole blood, venous blood with anticoagulant
Measurement range	4-14 % / 20-130 mmol/mol
Measurement unit / Test results	In % (NGSP) or mmol/mol (IFCC) optional
Precision	
Certificate / Traceability	NGSP, IFCC
IFCC Coefficient of variation	1.28 % (monitoring programme of 2016)

Further products

for diabetology

Microalbumin / Creatinine

From our Reactif urine test strip range, we would like to introduce Reactif 2, our semi-quantitative microalbumin-/creatinine test. This test detects albumin between 10-150 mg/l, as well as creatinine between 10-300 ml/dl (0.9-26.5 mmol/l). Creatinine is used as an aid in the simple and precise determination of microalbumin. For this reason, the microalbumin-creatinine ratio is utilised. Albumin is usu-

ally present in urine at a concentration of < 30 mg per 1 g of creatinine. Microalbuminuria is considered as a ratio of 30-300 mg / g creatinine (abnormal), and clinical albuminuria from a ratio upwards of > 300 mg / g creatinine (highly abnormal).

Your benefits at a glance:

- No waiting time
- Determine microalbumin and creatinine parallel to HbA1c
- High sensitivity and specificity
- Easy to use and interpret
- NGSP certified
- Fast and reliable test results in just 5-10 minutes
- Store our products at room temperature without affecting quality

Reactif Urine analysis strips

Fast urine analysis - a small selection from our parameter combinations

Product	Parameter													Reader-compatible	Product code	Test / tube	
Reactif 2 Urine test strips					C					Ma					✓	41021-M	50
Reactif 13 Urine test strips	A	Bi	Bl		C	G	K	L	Ma	N	pH	P	S	U	✓	41130-S	25
Reactif 14 Urine test strips NEW!	A	Bi	Bl	Ca	C	G	K	L	Ma	N	pH	P	S	U	✓	41140-M	50



C-reactive Protein (CRP)

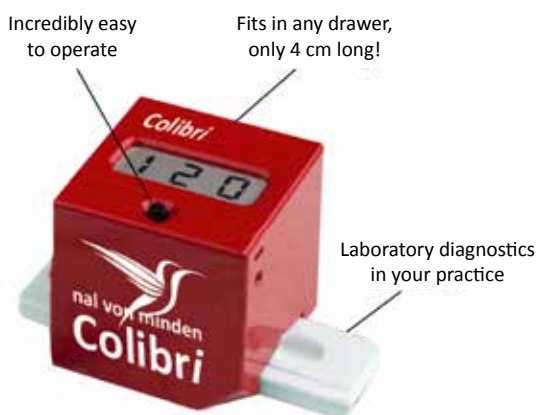
Quantitative determination with the Colibri Point-of-Care Reader (2-150 mg/L)

The nal von minden Colibri, at just 4cm long, is the ideal aid for the qualitative and quantitative analysis of rapid tests. It delivers fast and precise results and is a cost-efficient solution for any practice. Operated by just the press of a button, this device is especially user-friendly. No maintenance is necessary and quality control is simple to carry out. **Using**

the Colibri, you can determine quantitative CRP-values within your practice in just 5 minutes. We are continually developing new parameters for evaluation using the Colibri. Further details can be found in the product overview.

Your benefits at a glance:

- Small (4 x 4 x 4 cm)
- Light (40 g)
- Fast
- Precise (Coefficient of variation < 1%)
- User friendly (just one button)
- Inexpensive
- Easy to use quality control
- No maintenance required
- Result documentation via data transfer to PC



Product	Kit size	Product code
nal von minden Colibri · Point of Care Reader	1 piece	2150001
nal von minden Colibri · USB cable + DataViewer Software	1 piece	2150002
NADAL® CRP Quant test cassette (quantitative: 2-150 mg/L)	20	312021NBUL-20
NADAL® Strep A Scan test cassette	20	222049NBUL-20
NADAL® Rota-Adeno Scan test cassette	10	481049NBUL-10
NADAL® H.pylori Ag Scan test cassette NEW!	10	262004NBUL-10
NADAL® RSV Scan test cassette NEW!	20	491008NBUL-20
NADAL® Influenza A/B Scan Testkassette NEW!	10	242006NBUL-10
NADAL® PCT Procalcitonin Quant test cassette (quantitative : 0.5-20 ng/mL)	20	2190010NBUL-20

Available soon

For more detailed information, contact us by telephone on **+49 0941 290100** or by email at **info@nal-vonminden.de!** We look forward to hearing from you!

Your nal von minden team

Contact



The nal von minden all-round service

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For further information, please contact us by telephone on **+49 0551 270706-99** or by email at **diabetesmanagement@nal-vonminden.com** We look forward to hearing from you!

Your nal von minden team.



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We help you care!

Rapid Tests

Laboratory Diagnostics

Laboratory Services

Consultation & Service

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