

HbA1c[®]NEFS*

Order Information

Cat. No.	Kit size
1 3348 99 10 920	 800 (4 x 200)
1 3348 99 10 921	 400 (4 x 100)

Intended Use

Diagnostic reagent for quantitative in vitro determination of hemoglobin A1c in human whole blood on automated respons[®]910.

Summary

Hemoglobin A1c (HbA1c) is glycosylated hemoglobin which is formed by the non-enzymatic attachment of glucose to native hemoglobin. The amount of HbA1c is dependent on the total quantity of hemoglobin. For this reason, HbA1c value is expressed as the ratio of glycosylated hemoglobin to total hemoglobin [1,2]. The rate of glycosylation is directly proportional to the blood glucose level. As the average lifespan of erythrocytes is around 120 days, the HbA1c value reflects the glycemic status over this period [1]. Determination of HbA1c is recommended for different purposes across age groups. For adolescents and adults, it can be used for screening the risk of diabetes and to diagnose a manifest diabetes, especially type 2 diabetes [1,3]. In addition, HbA1c is used to monitor long-term glycemic status in diabetics to track the success of the respective therapy, as clinical studies have shown that lowering HbA1c might help to prevent or to delay late diabetic complications [1,2]. In children, however, determination of HbA1c is only recommended for screening for increased diabetes risk [4].

Method

Hemoglobin:	Photometric test
HbA1c:	Colorimetric, enzymatic method

The concentrations of HbA1c and hemoglobin are determined separately and are used to calculate the HbA1c ratio from total hemoglobin exclusively.

Hemoglobin measurement

Whole blood samples are lysed with hemolyzing solution. Hemoglobin is released from the erythrocytes. The absorbance of hemoglobin is measured at 570 nm after addition of reagent R1 and is proportional to the total hemoglobin concentration in the sample.

HbA1c measurement [5]

After addition of R2, fructosylated dipeptides from the N-terminal part of the hemoglobin β -chain are released by a protease. Hydrogen peroxide (H_2O_2) is produced by oxidative cleavage of fructosylated dipeptides by FPOX (fructosyl peptide oxidase). The H_2O_2 generated is determined colorimetrically by reaction with a chromogen in presence of peroxidase at 660 nm. The absorbance increase is proportional to the HbA1c concentration.

Standardization

The assay is standardized according to the approved IFCC reference method [6].

NGSP and IFCC values show a linear relationship and, therefore, can be calculated from each other using the following equation:

$$HbA1c (IFCC^a) = (HbA1c (NGSP^b) - 2.15) / 0.0915$$

$$HbA1c (NGSP^b) = 0.0915 \times HbA1c (IFCC^a) + 2.15$$

a: IFCC values in mmol/mol
b: NGSP values in %

IFCC: International Federation of Clinical Chemistry [6-8]
DCCT: Diabetes Control and Complications Trial [9]
NGSP: National Glycohemoglobin Standardization Program [10]

HbA1c and Average Glucose Concentrations

Due to a linear correlation between hemoglobin A1c and average glucose concentrations HbA1c values can be converted in estimated average glucose values by means of the following equations:

Standardization according to IFCC [11]:

$$\text{Average glucose conc. [mg/dL]} = 2.63 \times HbA1c^a + 15.01$$

$$\text{Average glucose conc. [mmol/L]} = 0.146 \times HbA1c^a + 0.829$$

a: HbA1c values in mmol/mol IFCC

Standardization according to NGSP:

$$\text{Average glucose conc. [mg/dL]} = 28.7 \times HbA1c^b - 46.7$$

$$\text{Average glucose conc. [mmol/L]} = 1.59 \times HbA1c^b - 2.59$$

b: HbA1c values in % NGSP

No significant differences in the regression equation were observed for variations in individuals tested, including sex, presence or absence of diabetes, type of diabetes, age, race, and ethnicity. Although this equation can be used for the majority of individuals, each laboratory has to reassure itself if the regression equations mentioned are applicable for the patient group to be examined.

Reagents

Components and Concentrations

R1:	Buffer	100 mmol/L
	FPOX	≥ 0.5 kU/L
	Ethylene glycol derivative	< 10%
R2:	Buffer	20 mmol/L
	Protease	≥ 500 kU/L
	Chromogen	≥ 0.05 mmol/L
	Ethylene glycol derivative	< 10%

Storage and Stability

Reagents are stable up to the date of expiry indicated on the kit, if stored at 2 – 8°C and contamination is avoided. Do not freeze and protect from light.

The open-vial stability of the reagent is 12 months until expiry date.

Warnings and Precautions

- Components contained in HbA1c net FS are classified according to EC regulation 1272/2008 (CLP) as follows:



⚠ Reagent 2: Warning. H400 Very toxic to aquatic life. P273 Avoid release to the environment. P391 Collect spillage. P501 Dispose of contents/container to hazardous or special waste collection point.

- The reagents contain material of biological origin. Handle the product as potentially infectious according to universal precautions and good clinical laboratory practice.
- Hemoglobin and HbA1c values in g/dL determined with DiaSys HbA1c net FS are used to calculate the HbA1c ratio from total hemoglobin exclusively. Individual results for hemoglobin and HbA1c must not be used for diagnostic purposes.
- Measurement of HbA1c is not appropriate for diagnosis of gestational diabetes [12].
- Falsely low values (low HbA1c despite high blood glucose) may occur in people with conditions such as shortened red blood cell survival (e.g. hemolytic diseases) or significant recent blood loss during the weeks before (higher fraction of young erythrocytes). Falsely high values (high HbA1c despite normal blood glucose) have been reported in iron deficiency anemia (high proportion of old erythrocytes). These circumstances have to be considered in clinical interpretation of HbA1c values [1].
- As HbA1c represents the stable coupling of glucose at the N-terminal end of the hemoglobin A1 β -chain, glycosylated Hb variants without β -chains cannot be determined with this test. Determination of total hemoglobin includes all Hb variants; therefore, samples with high concentrations of Hb variants without β -chains may show falsely low HbA1 concentrations.
- In very rare cases, samples of patients with gammopathy might give falsified results [13].
- N-acetylcysteine (NAC), acetaminophen and metamizole medication leads to falsely low results in patient samples.
- In case of product malfunction or altered appearance that could affect the performance, contact the manufacturer.

- Any serious incident related to the product must be reported to the manufacturer and the competent authority of the Member State where the user and/or patient is located.
- Please refer to the safety data sheets (SDS) and take the necessary precautions for the use of laboratory reagents. For diagnostic purposes, the results should always be assessed with the patient's medical history, clinical examinations and other findings.
- For professional use only.

Waste Management

Refer to local legal requirements for chemical disposal regulations as stated in the relevant SDS to determine the safe disposal.

Warning: Handle waste as potentially biohazardous material. Dispose of waste according to accepted laboratory instructions and procedures.

Reagent Preparation

The reagents are ready to use. The bottles are placed directly into the reagent rotor.

Bring HbA1c net Hemolyzing Solution to room temperature and homogenize by repeated inversion. Due to composition of the hemolyzing solution an opalescent and slightly turbid appearance remains. Avoid foaming! Do not shake!

Materials Required

General laboratory equipment

Specimen

Human EDTA whole blood

Please collect whole blood by standard venipuncture and fill the blood collection tube according to manufacturer specifications.

Only use suitable tubes or collection containers for specimen collection and preparation.

When using primary tubes, follow the manufacturer's instructions.

Subsequent blood collection tubes have been tested:

BD Vacutainer (Art. No. 368856), 3.0 mL, K2EDTA
Sarstedt Monovette (Art. No. 05.1167), 2.7 mL, K3EDTA

DiaSys measurements have been performed on day of blood collection. The samples showed a normal blood sedimentation rate.

Per run, determination of up to 30 whole blood samples in primary tubes is possible if:

- Calibration and control recovery have previously been done in a separate run.
- Above-mentioned primary tubes are homogenized by swirling several times and analyzed immediately in one run to reduce the effects of erythrocyte sedimentation.
- Only HbA1c net is determined in this run.

Samples containing too little erythrocytes are flagged, no value is displayed. In this case, re-mix the sample and repeat the analysis, optionally via the STAT position.

Stability [14]:


Whole blood 1 week at 2 – 8°C

Discard contaminated specimens.

Sample Preparation

DiaSys HbA1c net Hemolyzing Solution is required for sample preparation.

HbA1c net Hemolyzing Solution

Cat. No. 1 4590 99 10 923 Kit size  800 (4 x 200)

The bottles of DiaSys HbA1c net Hemolyzing Solution are placed directly into the reagent rotor. Hemolysis is performed on board of the instrument automatically.

Note: TruCal HbA1c net Level 1 for onboard hemolysis is prepared by diluting the dissolved calibrator with aqua dest.

2 parts dist. water + 1 part TruCal HbA1c net Level 2

Use TruCal HbA1c net Level 1 immediately for analysis.

Calculation

After entering the calculation formula into the instrument, the calculation of HbA1c ratio from total hemoglobin is done by the instrument automatically. Please refer to the instrument manual.

Depending on the standardization selected, enter the following formula:

IFCC

Values in mmol/mol according to IFCC:

$$\text{HbA1c [mmol / mol]} = \left(\frac{\text{HbA1c [g/dL]}}{\text{Hb [g/dL]}} \right) \times 1000$$

DCCT/NGSP

Values in percent according to DCCT/NGSP:

$$\text{HbA1c [%]} = \left(91.5 \times \frac{\text{HbA1c [g/dL]}}{\text{Hb [g/dL]}} \right) + 2.15$$

Calibrators and Controls

DiaSys TruCal HbA1c net is recommended for calibration. Calibrator values have been made traceable to the approved IFCC reference method [6]. Use DiaSys TruLab HbA1c net Level 1 and Level 2 for internal quality control. All target values of the controls are traceable to DiaSys reagent/calibrator system. Quality control must be performed after calibration. Control intervals and limits have to be adapted to the individual requirements of each laboratory. Results must be within the defined ranges. Follow the relevant legal requirements and guidelines. Each laboratory should establish corrective action in case of deviations in control recovery.

	Cat. No.	Kit size
TruCal HbA1c net	1 3350 99 10 044	2 x 0.3 mL
TruLab HbA1c net Level 1	5 9930 99 10 076	6 x 1 mL
TruLab HbA1c net Level 2	5 9940 99 10 076	6 x 1 mL

Performance Characteristics

Measuring range from 20 mmol/mol up to 150 mmol/mol according to IFCC (from 4% up to 16% according to DCCT/NGSP). Linearity IFCC < 30 mmol/mol is given with ± 1.5 mmol/mol, linearity between 30 mmol/mol up to 100 mmol/mol within ± 5%, linearity > 100 mmol/mol within ± 7%. The assay is applicable for hemoglobin concentrations in blood from 6 g/dL to 30 g/dL (from 3.73 mmol/L to 18.6 mmol/L). Linearity is given within ± 5%.	
Limit of detection**	HbA1c: 0.3 g/dL Hemoglobin: 6 g/dL
Limit of quantitation**	HbA1c: 0.3 g/dL Hemoglobin: 6 g/dL
Onboard stability	4 weeks
Calibration stability	3 weeks (8 hours/day uncooled)
Calibration stability	1 week (24 hours/day uncooled)

Interference by	Interferences ≤ 10% in serum with hematocrit correction up to	Analyte concentration [mmol/mol]
Ascorbic acid	50 mg/dL	35.3
	50 mg/dL	70.9
Bilirubin (conjugated)	10 mg/dL	35.4
	10 mg/dL	63.7
Bilirubin (unconjugated)	10 mg/dL	36.3
	10 mg/dL	65.9
Glucose	1000 mg/dL	40.6
	1000 mg/dL	66.2
Hemoglobin (acetylated)	10 mmol/L	34.6
	10 mmol/L	70.6
Hemoglobin (carbamylated)	10 mmol/L	34.8
	10 mmol/L	70.0
Lipemia (triglycerides)	750 mg/dL	35.8
	1000 mg/dL	72.8
N-acetylcysteine (NAC)	2000 mg/L	42.3
	2000 mg/L	71.3
Urea	300 mg/dL	34.6
	300 mg/dL	69.7
Uric acid	20 mg/dL	36.9
	20 mg/dL	76.9
For further information on interfering substances, refer to the literature [1,15-17].		

Hemoglobin variants may lead to deviant HbA1c results. The tested Hemoglobin variants HbS, HbC, HbD, HbE, HbJ, HbG, HbSC, HbSE, HbEE and HbF showed no significant interference.

Hemoglobin Variant	Percentage of Hemoglobin Variant (≤)	Target Value range HbA1c [% DCCT/NGSP]	Mean Recovery HbA1c [%]
AS	40% S	5.2 – 8.8	94.7
AC	36% C	5.0 – 7.4	97.1
AD	41% D	5.6 – 7.0	93.9
AE	26% E	5.9 – 7.6	99.1
AJ	50% J	5.2 – 8.4	100
AG	20% G	6.1 – 6.6	97.4
SC	52% S, 44% C	4.5 – 7.0	91.6
SE	65% S, 27% E	7.4	95.4
EE	94% E	5.1 – 8.9	98.0
Elevated F	4.6% F	6.5 – 8.1	93.6

Precision Values according to IFCC			
Repeatability (n=20)	Sample 1	Sample 2	Sample 3
Mean [mmol/mol]	32.9	34.8	63.6
CV [%]	2.27	2.69	2.14
Between day (n=20)	Sample 1	Sample 2	Sample 3
Mean [mmol/mol]	31.0	33.2	62.6
CV [%]	2.46	3.31	2.59

Method comparison (n=100)	
Test x	HbA1c HPLC Arkray HA-8160 V7.41
Test y	DiaSys HbA1c net FS (respons [®] 910)
Slope	0.983
Intercept	1.62 mmol/mol
Coefficient of correlation	0.994

** lowest measurable concentration which can be distinguished from zero; mean + 1.645 SD (n = 60) of an analyte free specimen.

Reference Range

Suggested target values for HbA1c [18]:

	mmol/mol IFCC	% NGSP
Non-diabetics	20 – 42	4 – 6
Target of therapy	< 53	< 7
Change of therapy	> 64	> 8

HbA1c cut point value for diagnosis of diabetes mellitus [2]:

According to a recommendation of the American Diabetes Association (ADA): ≥ 6.5% according to DCCT and 48 mmol/mol according to IFCC.

Patients with HbA1c values in the range of 5.7 – 6.4% HbA1c according to DCCT or 39 – 46 mmol/mol HbA1c according to IFCC may be at high risk of developing diabetes.

Each laboratory should check if the reference ranges are transferable to its own patient population and determine own reference ranges if necessary.

Literature

1. Thomas L. Clinical Laboratory Diagnostics [Internet]; 2024 [cited 2024 Jul 18]. Available from: <https://www.clinical-laboratory-diagnostics.com/>
2. Sacks DB. Carbohydrates. In: Burtis CA, Ashwood ER, editors. Tietz Textbook of Clinical Chemistry. 3rd ed. Philadelphia: W.B. Saunders Company; 1999. page 790-6.
3. Sacks DB, Arnold M, Bakris GL, et al. Guidelines and recommendations for laboratory analysis in the diagnosis and management of diabetes mellitus. Clin Chem. 2011;57:e1-e47.
4. Vijayakumar P, Nelson RG, Hanson RL, Knowler WC, Sinha M. HbA1c and the Prediction of Type 2 Diabetes in Children and Adults. Diabetes Care 2017; 40:16-21.
5. Ferri S, Kim S, Tsugawa W, Sode K. Review of Fructosyl Amino Acid Oxidase Engineering Research: A Glimpse into the Future of Hemoglobin A1c Biosensing. Journal of Diabetes Science and Technology 2009; 3(3): 585-592.
6. Jeppsson JO, Kobold U, Barr J, Finke A et al. Approved IFCC reference method for the measurement of HbA1c in human blood. Clin Chem Lab Med 2002;40:78–89.
7. Hoelzel W, Weykamp C et al. IFCC Reference System for Measurement of Hemoglobin A1c in Human Blood and the National Standardization Schemes in the United States, Japan, and Sweden: A Method-Comparison Study. ClinChem 2004;50:166-74.
8. Nordin G., Dybkær R. Recommendation for term and measurement unit for “HbA1c”. Clin Chem Lab Med 2007;45:1081-2.
9. The Diabetes Control and Complications Trial Research Group. The effect of intensive treatment of diabetes in the development and progression of longterm complications in insulin-dependent diabetes mellitus. N Engl J Med.1993;329:977-86.
10. Little RR, Rohlfing CL, Wiedmeyer HM, Myers GL et al. The National Glycohemoglobin Standardization Program: A Five-Years Progress Report. Clin Chem 2001;47:1985-92.
11. Sacks DB. Translating Hemoglobin A1c into Average Blood Glucose: Implications for Clinical Chemistry. Clinical Chemistry 2008;54:1756-8.
12. Gillett MJ. International expert committee report on the role of the A1c assay in the diagnosis of diabetes. Diabetes care. 2009;32:1327–1334.
13. Bakker AJ, Mücke M. Gammopathy interference in clinical chemistry assays: mechanisms, detection and prevention. ClinChemLabMed 2007;45:1240–1243.
14. Data on file at DiaSys Diagnostic Systems GmbH

15. Weykamp C. Carbamylated Hemoglobin Interference in Glyco-hemoglobin Assays. Clin Chem 1999; 45: 438-9.
16. Young DS. Effects of Drugs on Clinical Laboratory Tests. 5th ed. Volume 1 and 2. Washington, DC: The American Association for Clinical Chemistry Press 2000.
17. Young DS. Effects on Clinical Laboratory Tests - Drugs Disease, Herbs & Natural Products, <https://clinfx.wiley.com/aaccweb/aacc/>, accessed in June 2021. Published by AACC Press and John Wiley and Sons, Inc.
18. Panthegini M, John WG on behalf of the IFCC Scientific Division. Implementation of haemoglobin A1c results traceable to the IFCC reference system: the way forward. Clin Chem Lab Med 2007;45:942-4.

Additions and/or changes in the document are highlighted in grey. Deletions are communicated via customer info by stating the edition no. of the package insert/instruction for use.



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* Fluid Stable

HbA1c net FS (reaction 1 hemoglobin)

Application for whole blood samples

This application was set up and evaluated by DiaSys. It is based on the standard equipment at that time and does not apply to any equipment modifications undertaken by unqualified personnel.

Identification	
This method is usable for analysis:	Yes
Twin reaction:	Yes
Name:	HbA1c net
Shortcut:	
Reagent barcode reference:	723
Host reference:	723

Technic	
Type:	End point
First reagent:[μ L]	150
Blank reagent	Yes
Sensitive to light	Yes
Second reagent:[μ L]	
Blank reagent	
Sensitive to light	
Main wavelength:[nm]	570
Secondary wavelength:[nm]	800
Polychromatic factor:	1.0000
1 st reading time [min:sec]	(04:24)
Last reading time [min:sec]	04:24
Reaction way:	Increasing
Linear Kinetics	
Substrate depletion: Absorbance limit	
Linearity: Maximum deviation [%]	
Fixed Time Kinetics	
Substrate depletion: Absorbance limit	
Endpoint	
Stability: Largest remaining slope	
Prozone Limit [%]	

Reagents	
Decimals	2
Units	g/dL

Sample	
Diluent	
Hemolysis:	
Agent [μ L]	HYA (R951) 200
Cleaner	CLN A (R900)
Sample [μ L]	10
Technical limits	HbA1c [mmol/mol]: 20.0000 -150.0000
Concentration technical limits-Lower	6.0000
Concentration technical limits-Upper	30.0000
SERUM	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
URINE	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
PLASMA	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
CSF	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
Whole blood	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	

Results	
Decimals	1
Units	mmol/mol
Correlation factor-Offset	0.0000
Correlation factor-Slope	1.0000

Range	
Gender	All
Age	
SERUM	#
URINE	
PLASMA	
CSF	
Whole blood	
Gender	
Age	
SERUM	
URINE	
PLASMA	
CSF	
Whole blood	

Contaminants	
Please refer to r910 Carryover Pair Table	

Calibrators details	
Calibrator list	Concentration
Cal. 1/Blank	*
Cal. 2	*
Cal. 3	
Cal. 4	
Cal. 5	
Cal. 6	
	Max delta abs.
Cal. 1	0.005
Cal. 2	0.005
Cal. 3	
Cal. 4	
Cal. 5	
Cal. 6	
Drift limit [%]	0.80

Calculations	
Model	X
Degree	1

* Enter calibrator value

Editable by user

Calculation of HbA1c /Hb ratio is done automatically. For values in percent according to DCCT/NGSP please enter 2.15 offset and a slope of 0.0915.

HbA1c net FS (reaction 2 HbA1c)

Application for whole blood samples

This application was set up and evaluated by DiaSys. It is based on the standard equipment at that time and does not apply to any equipment modifications undertaken by unqualified personnel.

Identification	
This method is usable for analysis:	Yes
Twin reaction:	Yes
Name:	HbA1c net
Shortcut:	
Reagent barcode reference:	723
Host reference:	723

Technic	
Type:	Fixed time kinetic
First reagent:[μ L]	
Blank reagent	
Sensitive to light	
Second reagent:[μ L]	50
Blank reagent	No
Sensitive to light	Yes
Main wavelength:[nm]	660
Secondary wavelength:[nm]	800
Polychromatic factor:	1.0000
1 st reading time [min:sec]	05:00
Last reading time [min:sec]	10:00
Reaction way:	Increasing
Linear Kinetics	
Substrate depletion: Absorbance limit	
Linearity: Maximum deviation [%]	
Fixed Time Kinetics	
Substrate depletion: Absorbance limit	
Endpoint	
Stability: Largest remaining slope	
Prozone Limit [%]	

Reagents	
Decimals	3
Units	g/dL

Sample	
Diluent	
Hemolysis:	
Agent [μ L]	HYA (R951) 200
Cleaner	CLN A (R900)
Sample [μ L]	10
Technical limits	HbA1c [mmol/mol]: 20.0000 -150.0000
Concentration technical limits-Lower	0.3000
Concentration technical limits-Upper	2.0000
SERUM	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
URINE	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
PLASMA	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
CSF	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	
Whole blood	
Normal volume [μ L]	25.0
Normal dilution (factor)	1
Below normal volume [μ L]	
Below normal dilution (factor)	
Above normal volume [μ L]	
Above normal dilution (factor)	

Results	
Decimals	1
Units	mmol/mol
Correlation factor-Offset	0.0000
Correlation factor-Slope	1.0000

Range	
Gender	All
Age	
SERUM	#
URINE	
PLASMA	
CSF	
Whole blood	
Gender	
Age	
SERUM	
URINE	
PLASMA	
CSF	
Whole blood	

Contaminants	
Please refer to r910 Carryover Pair Table	

Calibrators details		
Calibrator list	Concentration	
Cal. 1/Blank	*	
Cal. 2	*	
Cal. 3		
Cal. 4		
Cal. 5		
Cal. 6		
	Max delta abs.	
Cal. 1	0.005	
Cal. 2	0.015	
Cal. 3		
Cal. 4		
Cal. 5		
Cal. 6		
Drift limit [%]	0.80	

Calculations	
Model	Automatic Degree
Degree	Auto Drift

* Enter calibrator value

Editable by user

Calculation of HbA1c /Hb ratio is done automatically. For values in percent according to DCCT/NGSP please enter 2.15 offset and a slope of 0.0915.