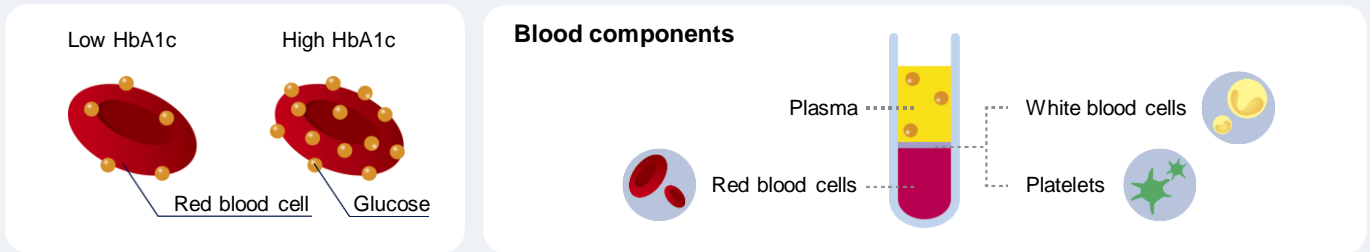




Simultaneous Measurement of Glucose and HbA1c in Clinical Chemistry Analyzer

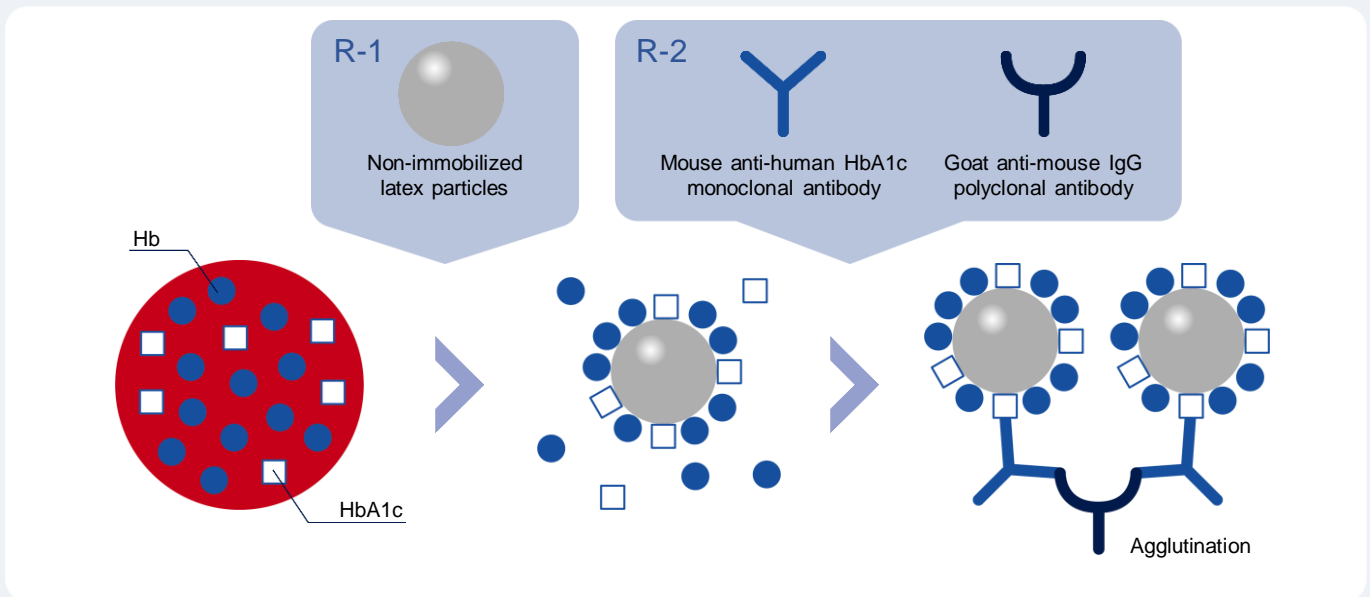
Introduction

The determination of glucose and HbA1c is essential to diagnose diabetes mellitus. HbA1c is a form of hemoglobin chemically linked to glucose. Glucose is in serum or plasma and HbA1c is inside of RBCs. Glucose can be determined directly from serum and plasma. On the other hand, HbA1c is determined from lysing solution after RBCs are lysed. Clinical chemistry analyzers equipped with lysing function enable hemolysis of RBCs and the simultaneous determination of glucose and HbA1c.



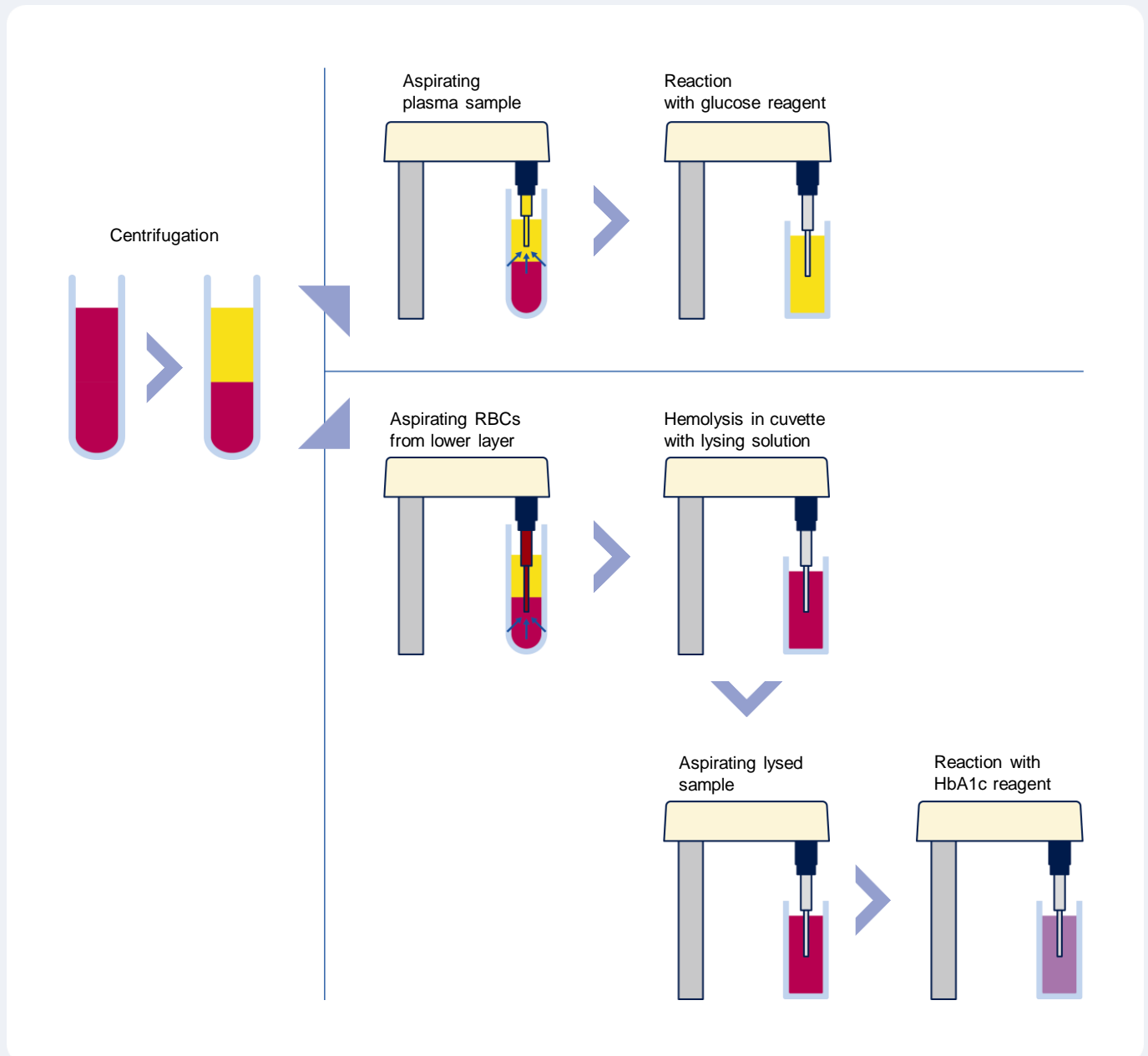
Latex Immunoturbidimetric Assay

Hb and HbA1c can be released from erythrocytes by hemolysis treatment. Latex particles are immobilized with HbA1c in the sample. Immobilized latex particles by Hb and HbA1c react with mouse anti-human HbA1c monoclonal antibody and goat anti-mouse IgG polyclonal antibody. The agglutination of latex, HbA1c and two types of antibodies is proportional to the percentage of HbA1c. Therefore, the percentage of HbA1C can be determined.





Mechanism of Simultaneous Determination of Glucose and HbA1c from Whole Blood Sample in CA-800



Clinical chemistry analyzer, the CA-800, has the function to lyse RBCs on board.

RBCs are lysed in cuvette with lysing solution.

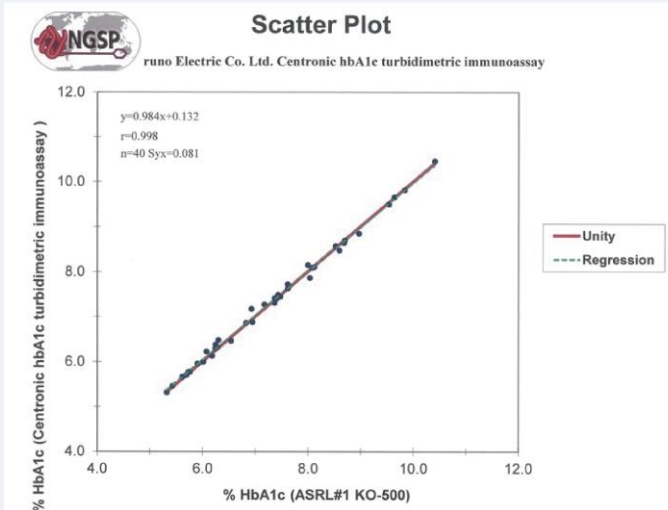
This lysed sample is used for HbA1c determination.

This enables the simultaneous determination of Glucose and HbA1c from one blood collecting tube with anticoagulant.

FURUNO

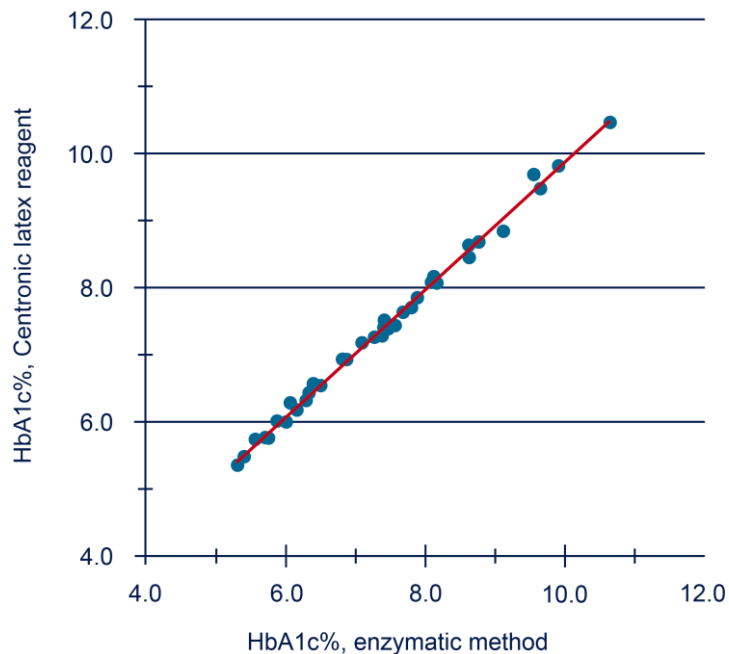


NGSP Certificate



The combination between Furuno CA-800, Centronic HbA1c reagent and calibrator gets NGSP certificate of traceability every year.

Correlation



Centronic HbA1c reagent shows good correlation to enzymatic methodology, too.



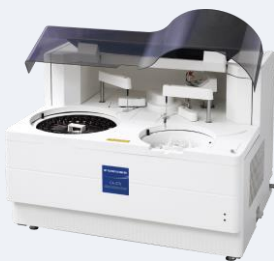
Reagent Package Information



Product Name	Product No.	FURUNO Analyzer	Configuration		
			R1	R2	Other
Glucose HK fluid 5+1	GF02917084-F3	CA-270 CA-400 CA-800	3 × 67mL	3 × 17mL	-
	GF02917084-F		6 × 67mL	6 × 17mL	-
	GF02917084-F4		4 × 20mL	4 × 6mL	-
	GF02917084-F8		8 × 20mL	8 × 6mL	-
HbA1c	HF04917040-F	CA-270 CA-800	1 × 30mL	12 × 20mL	Lysing solution 2 × 60mL
HbA1c Calibration set	CCALHbA1cT		4 levels × 0.5mL		
HbA1c Control low	CNORMHbA1c	CA-270 CA-400 CA-800	1 level × 0.5mL		
HbA1c Control high	CPATHHbA1c		1 level × 0.5mL		

Reagents are manufactured by Centronic GmbH certified according to ISO13485.

FURUNO Analyzers



Model: CA-270



Model: CA-400



Model: CA-800

*Please check our web site (<https://www.furuno.com/en/medical>) for more details.



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