

Evaluation of MiniCollect® Glucose Tubes with spray-dried additive

Background:

Greiner Bio-One has developed new MiniCollect® tubes incorporating spray-dried additives. The advantage of the new technology is that the additive is more uniformly coated on the inner tube walls and the mixing characteristics are improved

The MiniCollect® MiniCollect® Glucose capillary blood collection tube is also featured with the unique cross-cut cap which does not need to be removed during the collection and sampling process.

The interior of the tube is coated with spray-dried Sodium Fluoride and Potassium Oxalate. Potassium Oxalate acts as anticoagulant and Sodium Fluoride stabilises the blood sugar and lactate levels for a period of 24 hours.

MiniCollect® Glucose tubes are intended for use for testing of Glucose (blood sugar) and Lactate (lactic acid).

Study Objective:

A clinical evaluation was carried out to compare the performance of the new spray-dried MiniCollect® Glucose tube in comparison to the Becton Dickinson FE Microtainer® tube.

Study design:

The following tube types were used in this study:

Sample ID	Description
A	MiniCollect® Glucose FX Sodium Fluoride/Potassium Oxalate 0,25 ml, spray dried (item No.:450481)
B	Microtainer® FE Sodium Fluoride/ EDTA 0,6 ml, (item No.:365993)

Directly after blood collection with venous blood, the tubes were carefully inverted according to the instructions given by the tube manufacturers. Glucose was tested within 4 hours of collection using a Hitachi 917 instrument from Roche. Analysis was performed with the instrument's accompanying reagents.

Conclusion:

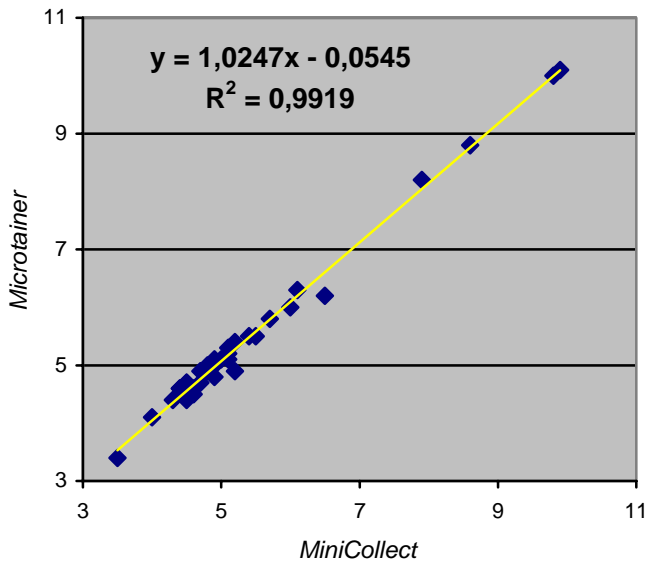
The MiniCollect® Glucose tube with spray-dried additive demonstrated equivalent performance to the Microtainer® FE tube.

References:

- (1) Greiner Bio-One. MiniCollect® Capillary Blood Collection Product Range. Instructions for Use. Kremsmünster, Austria. 2006.
- (2) Greiner Bio-One. MiniCollect® Product Manual. Kremsmünster, Austria. 2003.
- (3) Becton Dickinson and Company, BD Microtainer® Chemistry Tubes. Instructions for Use, Franklin Lakes. 2006
- (4) Guideline published by the Chamber Association for Medical Practitioners of the State of Germany concerning the quality assurance of quantitative analyses of Medical Laboratories, Germany (2001). Rev.2003
- (5) ISO 6710:1995(E), *Single-use containers for venous blood specimen collection*. International Standard. Genève, Switzerland (1995)
- (6) EP7-A: *Interference Testing in Clinical Chemistry*, Approved Guideline. CLSI (formerly NCCLS) document (ISBN 1-56238-480-5). CLSI, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania 19087-1898, USA 2002.
- (7) EP9-A2: *Method Comparison and Bias Estimation Using Patient Samples*; Approved Guideline—Second Edition. CLSI (formerly NCCLS) document EP9-A2 (ISBN 1-56238-472-4). CLSI, 940 West Valley Road, Suite 1400, Wayne, Pennsylvania 19087-1898 USA, 2002.

Glucose

Glucose in mmol/l:
normal range: 3,9 - 6,1 mmol/l
MiniCollect vs Microtainer



Glucose
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