S-Monovette® GlucoEXACT
Information for the laboratory

NEW!

Reliable diagnostics for gestational diabetes

• In accordance with international guidelines and directives
• Liquid preparation ensures quick glycolysis inhibition
• Glucose stabilisation for up to 48h
• Minimises clinical misinterpretation
Since glycolysis in blood samples increases with time, preanalytical conditions for glucose determination from venous blood are of major importance. In order to reliably and immediately inhibit glycolysis, the German guideline on gestational diabetes issued by DDG/DDGG** recommends adding a glycolysis inhibitor consisting of a fluoride and citrate mixture to the blood sample.¹ The American Diabetes Association also recommends immediate inhibition of glycolysis.² The new S-Monovette® GlucoEXACT conforms to the guideline of the DDG/DDGG** by directly stabilising the glucose concentration of a blood sample for up to 48 hours at room temperature.

The effectiveness of the use of the S-Monovette® GlucoEXACT for glycolysis inhibition in whole venous blood has recently been evaluated by an independent high throughput laboratory. Detailed scientific data: presented at the 47th Annual Meeting of the German Diabetes Association in Stuttgart in May 2012.

**Range of Application**
The S-Monovette® GlucoEXACT is suitable for the determination of glucose concentration in plasma by means of the Hexokinase and GOD-PAP method. Additional methods and analyses are subject to specific approval.

**Preparation**
The mixture of citrate and glucose provides immediate and long lasting inhibition of glycolysis, and corresponds to the guideline issued by the DDG/DDGG**. The pH dependent enzymes that cause glycolysis in the short term (enzyme: hexokinase & phosphofructokinase) are deactivated by the acidity of the citrate additive, while long term glycolysis inhibition is brought about by the fluoride additive deactivating the enolase enzyme.

The optimal solubility of the liquid preparation ensures effective glycolysis inhibition in whole blood. The stable glucose value can be determined from the plasma after centrifugation.

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**Notes on Filling Volume**
The dilution effect caused by the preparation is 1.16. To avoid incorrect measurements or failure of the sampling probe due to low volume, it is essential to ensure that the tube is filled to the fill line thereby achieving the correct mixing ratio.

The tube also leads to an increased fluoride concentration which can increase the risk of a haemolysed sample.

**Multiplication Factor**
Due to dilution of the blood caused by the liquid preparation the result of the glucose analysis must be multiplied by a factor of 1.16. This factor is determined by the ratio of the volume of blood and liquid preparation when the tube is filled to nominal volume. Please ensure that the sample being analysed has been filled to the fill line.

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**Ordering Information**

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<td>S-Monovette® GlucoEXACT 3.1 ml</td>
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¹ “Gestationsdiabetes mellitus (GDM): Evidenzbasierte Leitlinie zur Diagnostik - Therapie und Nachsorge” Kleinwechter et al, DDG 06.2011
² “Guidelines and Recommendations for Laboratory Analysis in the Diagnosis and Management of Diabetes Mellitus” Sacks et al, Diabetes Care 34, e61-e99 06.2011
³ Deutsche Diabetes Gesellschaft (German Diabetes Association)
⁴ Deutsche Gesellschaft für Gynäkologie und Geburtshilfe (German Gynaecology & Obstetrics Association)