No conversion factor

Unlike additives added in liquid form, the powder additive in the VACUETTE® FC Mix tube has no dilution effect. There is therefore no need to take a conversion factor into consideration.

Inserting ten times ensures that the tube additive is completely dissolved and therefore well mixed with the sample.

Tried-and-tested vacuum technology

Greiner Bio-One’s tried-and-tested vacuum technology is used for the new VACUETTE® FC Mix tube. The shatter-proof tube is made of polyethylene terephthalate (PET). PET is important for the stability of the vacuum. The safety cap is particularly easy to open and allows for hygienic working. The transparent plastic label provides an optimum view of the tube contents.

For further information, please visit our website www.gbo.com/preanalytics or contact us:
**VACUETTE® FC Mix tube**

Glucose stabilisation right from the beginning

The breakdown of glucose, glycolysis in various blood samples is of great significance in pre-analytics, particularly in relation to the diagnosis of diabetes mellitus and gestational diabetes. Various guidelines (American Association of Clinical Chemistry, American Diabetes Association, German Diabetes Society [DDG] and German Society for Gynaecology and Obstetrics [DGGG]) deal with this matter in detail.[1, 2]

Werner Bloche now has a solution in the form of the VACUETTE® FC Mix tube.

Effective glycolysis inhibition for precise determination of the in vivo blood sugar content

According to the guidelines from the DDG/DGGG,[2] the citrate fluoride additive in the tube stabilises the in vivo concentration of glucose in the sample[1].

The advantages are clear:

- **Stabilisation immediately after collection for 48 hours**
- **Based on the in vivo value** (almost 100%)
- **Avoids false negative diagnoses of diabetes patients**
- **Long-term stabilisation allows for longer transport and storage times**

The unique additive mixture is what makes the difference:

- **Citrate/citric acid buffer ensures quick stabilisation**
- **Glycolysis depends on the pH value. It is catalysed by the enzymes hexokinase and phosphofructokinase. When stored between + 4°C and room temperature, the enzymes, and consequently also glycolysis, are suppressed and the blood sugar is therefore constantly held at the in vivo value[1].**

- **Long-term inhibition via sodium fluoride**
  In order to extend the inhibition to 48 hours, the FC Mix tube contains a sodium fluoride additive.

**Advantages for the laboratory:**

- **Stabilisation in whole blood, no immediate centrifugation required**
- **No dilution effect due to additive in powder form**
- **Therefore no need to convert the analysis result**
- **Choice of pink and grey tube caps in order to differentiate between the FC Mix tube and standard glucose tubes**

**Item Overview**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Norm. Vol.</th>
<th>Cap Colour</th>
<th>Ring Colour</th>
<th>Tube Size</th>
<th>Description</th>
<th>Packaging Inner</th>
<th>Outer</th>
</tr>
</thead>
<tbody>
<tr>
<td>454510</td>
<td>2ml</td>
<td>pink</td>
<td>white</td>
<td>13 x 75</td>
<td>transparent label, non-ridged</td>
<td>50 pcs.</td>
<td>1200 pcs.</td>
</tr>
<tr>
<td>454511</td>
<td>2ml</td>
<td>grey</td>
<td>white</td>
<td>13 x 75</td>
<td>transparent label, non-ridged</td>
<td>50 pcs.</td>
<td>1200 pcs.</td>
</tr>
<tr>
<td>454513</td>
<td>3ml</td>
<td>pink</td>
<td>black</td>
<td>13 x 75</td>
<td>transparent label, non-ridged</td>
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<td>1200 pcs.</td>
</tr>
<tr>
<td>454514</td>
<td>3ml</td>
<td>grey</td>
<td>black</td>
<td>13 x 75</td>
<td>transparent label, non-ridged</td>
<td>50 pcs.</td>
<td>1200 pcs.</td>
</tr>
</tbody>
</table>

**Initial glucose level**:

![Initial glucose level graph](image)

EDTA as anticoagulant

**References:**

2. Den et al., Guidelines and Recommendations of Laboratory Analysis in the Diagnosis and Management of Gestational Diabetes, Clinical Chemistry 57:6 (2011)
5. Diabetic Samples: From the past to the laboratory, 3rd Edition
7. *Deutsche Diabetes Gesellschaft (German Diabetes Society) – Deutsche Gesellschaft für Gynäkologie und Geburtshilfe (Germaine Society for Gynaecology and Obstetrics)