o-Toluidine Reagent
(For blood glucose estimation)

Intended Use
o-Toluidine Reagent is use for estimation of blood glucose.

Composition**

Ingredients
- Thiourea: 1.50 gm
- Glacial acetic acid: 940.0 ml
- O-Toluidine, pure: 60.0 ml

**Formula adjusted, standardized to suit performance parameters

Directions
Prepare one Test, one Standard and one Blank for each assay series and dispense as follows:

<table>
<thead>
<tr>
<th></th>
<th>Test</th>
<th>Standard</th>
<th>Blank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) O-toluidine reagent, (ml)</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2) Glucose (test) of unknown concentration, (mg%)</td>
<td>0.05</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3) Glucose std: 100 (mg %)</td>
<td>-</td>
<td>0.05</td>
<td>-</td>
</tr>
<tr>
<td>4) Distilled water, (ml)</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Mix thoroughly, and place the tubes in boiling waterbath for exactly 10 minutes. By using tap water, cool the tubes to room temperature. Measure the optical densities of test and standard against blank at 640 nm (red filter 620 - 660 nm).

Principle And Interpretation
A solution of O-toluidine in glacial acetic acid when heated with glucose produces a green coloured complex with an absorption maximum at about 630 nm. The aldehyde group of the glucose apparently condenses with the reagent to form a glucosylamine and a Schiff base, which is probably the coloured product. Calculation: Conc. of sample (test, mg% = Absorbance of test/ Absorbance of standard * Conc. of standard

Type of specimen
Clinical samples

Specimen Collection and Handling
1. For clinical samples follow appropriate techniques for handling specimens as per established guidelines( 1,2).

Warning and Precautions
In Vitro diagnostic use only. Read the label before opening the container. Wear protective gloves/protective clothing/ eye protection/face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling clinical specimens. Safety guidelines may be referred in individual safety data sheets.

Performance and Evaluation
Performance of the product is expected when used as per the direction on the label within the expiry period when stored at recommended temperature.

Quality Control

Appearance
Light yellow liquid becoming reddish brown on exposure to air and light.

Clarity
Clear without any precipitate

Test
Determination of unknown glucose concentration is carried out using O-toluidine reagent for test sample. The optical densities of test and standard is measured against blank at 640 nm (red filter 620 - 660 nm).

Calculation
Conc. of sample (test),mg% = Absorbance of test/ Absorbance of standard * Conc. of standard

Please refer disclaimer Overleaf.
Storage and Shelf Life
Store between 10-30°C in tightly closed container and away from bright light. Use before expiry date on label. On opening, product should be properly stored in dry ventilated area protected from extremes of temperature and sources of ignition. Seal the container tightly after use.

Disposal
User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Follow established laboratory procedures in disposing of infectious materials and material that comes into contact with clinical sample must be decontaminated and disposed of in accordance with current laboratory techniques (2, 3).

Reference

In vitro diagnostic medical device

CE Marking

Storage temperature

Do not use if package is damaged

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