**TDA Reagent**

**Intended use**

TDA Reagent is used to determine the tryptophan-deaminase activity.

**Composition**

**Ingredients**

- Ferric chloride: 10.000 gm
- Distilled water: 100.000 ml

**Formula adjusted, standardized to suit performance parameters**

**Directions**

Add 1-2 drops of TDA Reagent (R036) directly on suspected colony from HiCrome UTI Agar (M1353) or HiCrome UTI Agar, Modified (M1418). Observe for appearance of dark brown colouration around the colony within 10 – 30 seconds for confirming positive reaction.

**Principle And Interpretation**

Tryptophan deamination is of reductive type where the ‘NH2’ group of tryptophan is removed and released as ammonia and energy, which is utilized by bacteria. The presence of tryptophan deamination activity can be detected by addition of TDA reagent indicated by dark brown colouration.

**Type of specimen**

1. The specimen is any isolated colony on primary or subculture plates.

**Specimen Collection and Handling**

1. For clinical samples follow appropriate techniques for handling specimens as per established guidelines (1,2).
2. For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (3,5).
3. For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards (4).

After use, contaminated materials must be sterilized by autoclaving before discarding.

**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.

**Limitations**

1. Only pure culture of single organism should be used for testing.
2. Tryptophan deaminase forms indole pyruvic acid from tryptophan which produces a brown colour in the presence of ferric ions. Indole positive organisms may produce a brown colour. This is a negative reaction.
3. Test can be evaluated immediately after the addition of the reagent.

**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**

Yellow coloured solution.

**Clarity**

Clear solution without any particles.

Please refer disclaimer Overleaf.
Cultural Response
R036: Biochemical identification was carried out by transferring suspected colony from HiCrome UTI Agar, Modified (M1418) plate on filter paper and adding 1-2 drops of TDA Reagent (R036).

<table>
<thead>
<tr>
<th>Organism</th>
<th>Growth</th>
<th>TDA</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Escherichia coli</em> ATCC 25922</td>
<td>Luxuriant</td>
<td>Negative (no colour change around colony)</td>
</tr>
<tr>
<td><em>Proteus mirabilis</em> ATCC 25933</td>
<td>Luxuriant</td>
<td>Positive (dark brown colouration around colony)</td>
</tr>
</tbody>
</table>

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 (6, 7).

Reference

Revision: 01 / 2019