

# TECHNICAL DATA SHEET

## URICHROME II GEL AGAR

GL/URI - 6

### INTENDED USE

Urichrome II gel agar is a non-selective chromogenic culture medium intended for use in the qualitative direct detection, differentiation, and presumptive identification of uropathogens to aid in the diagnosis of urine tract infections.

### TYPES OF SAMPLE

- Clinical

### PRINCIPLE

The formulations contain two Chromogenic substrates which are cleaved by the  $\beta$ -galactosidase and  $\beta$ -glucosidase enzymes produced by *E. coli*, *Enterococcus* species and coliforms. These specific enzyme reactions cleave the Chromogens giving a range of diagnostic colours. One of the Chromogenic substrates is cleaved by  $\beta$ -glucosidase possessed by Enterococci resulting in formation of blue colonies. *E. coli* produces pink colonies due to the enzyme  $\beta$ -D-galactosidase that cleaves the other Chromogenic substrate. Peptone and yeast extract provides nitrogenous, carbonaceous compounds and other essential growth nutrients. Agar works as a gelling agent.

### INGREDIENTS

| Approximate Formula Per Liter |        |
|-------------------------------|--------|
| Peptone and Yeast             | 17.0 g |
| Agar                          | 15.0 g |
| Chromogenic mixture           | 1.0 g  |

- Final pH  $7.0 \pm 0.2$  at 25°C.

### PHYSICAL PARAMETERS

- Appearance: Gel in 150 ml amber colour bottles with a smooth surface and absence of any particles, cracks, or bubbles.
- Colour: Medium to Light Amber
- Clarity: Opaque
- Volume: 120-125 ml

## STERILITY CHECK

Sterility of the plates is checked by incubating the plates at 35-37 °C for 3 days.

## MICROBIAL PERFORMANCE DATA

Growth promotion test was carried out in accordance with the harmonized method and Culture characteristics observed after inoculating 50-100 CFU and incubated at 35-37 °C for 18-24 hours. Growth Promoting properties are comparable to the previously tested and approved lot.

| Test Strains                  | ATCC No.   | Growth | Colour of the colony            |
|-------------------------------|------------|--------|---------------------------------|
| <i>Escherichia coli.</i>      | ATCC 25922 | Good   | Dark Pink To Reddish            |
| <i>Klebsiella pneumonia</i>   | ATCC 13883 | Good   | Metallic Blue                   |
| <i>Enterococcus faecalis</i>  | ATCC 29212 | Good   | Turquoise Blue                  |
| <i>Proteus mirabilis</i>      | ATCC 25933 | Good   | Brown Halo                      |
| <i>Staphylococcus aureus</i>  | ATCC 25923 | Good   | Golden, Opaque, Small           |
| <i>Pseudomonas aeruginosa</i> | ATCC 27853 | Good   | Translucent, Green Pigmentation |
| <i>Candida albicans</i>       | ATCC 10231 | Good   | Cream, Pinpoint Colonies        |
| <i>S. epidermidis</i>         | ATCC 12228 | Good   | Colourless                      |
| <i>S. saprophyticus</i>       | ATCC 15305 | Good   | Pink                            |

## LIMITATIONS & COMPLEMENTARY TESTS

- For samples follow appropriate techniques for handling specimens as per established guidelines.
- Most of *Serratia plymutica* will grow mauve.
- Some *S. saprophyticus* strains can grow in cream-colored colonies. Since it is an enzyme-substrate based reaction, the intensity of colour may vary with isolates.

- The final identification must be confirmed by biochemical tests, immunological tests or by mass spectrophotometry. They can be done directly from the suspicious colonies observed on the medium.

| Colonies                                         | Suggested Tests                                                        | Possible Identification                                                                            |
|--------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Red                                              | Indole Test: The medium allows indole test for confirmation of E. coli | Indole (+) = E. coli                                                                               |
| Brown halo                                       | TDA test (with FeCl <sub>3</sub> Test) for confirmation of Proteus.    | (+) = Proteus vulgaris (blue colony center)<br>Morganella, Providencia.<br>(-) = Proteus mirabilis |
| Turquoise blue, small Gram (+), cocci appearance | PYR test (or serological test or haemolysis)                           | PYR (+) = Enterococcus<br>PYR (-) = Streptococcus B                                                |

### PRECAUTIONS

- For in-Vitro diagnostic use. Read the label details and storage before opening the pack.
- Wear protective gloves / protective clothing / eye protection / face protection.
- Follow good microbiological lab practices while handling specimens and culture.

### PACK SIZE AND PACKAGING

6 bottles per kit packed in White Corrugated 5 Ply Top Board box.

### STORAGE & SHELF LIFE

- Store at 10 -15 °C.
- Use before the expiry date mentioned on the label.
- Product is temperature sensitive; protect from direct sunlight, excessive heat, moisture, and freezing.

### DISPOSAL

User must ensure safe disposal by autoclaving and/or incineration of used or unusable preparations of this product. Materials that have come in contact with infectious / clinical samples must be decontaminated and disposed of in accordance with current laboratory techniques and regulations.