

# UTI AGAR

**INTENDED USE:**

UTI Agar is a differential medium recommended for presumptive identification of microorganisms mainly causing urinary tract infections.

**PRINCIPLE AND INTERPRETATION:**

These media are recommended for the detection of urinary tract pathogens where HiCrome UTI Agar has broader application as a general nutrient agar for isolation of various microorganisms.

These media are recommended for the detection of urinary tract pathogens where HiCrome UTI Agar has broader application as a general nutrient agar for isolation of various microorganisms. It facilitates and expedites the identification of some gramnegative bacteria and some gram-positive bacteria on the basis of different contrasted colony colours produced by reactions of genus or species specific enzymes with two chromogenic substrates. The chromogenic substrates are specifically cleaved by enzymes produced by Enterococcus species, E.coli and coliforms. Presence of amino acids like phenylalanine and tryptophan from peptones helps for detection of tryptophan deaminase activity, indicating the presence of Proteus species, Morganella species and Providencia species.

One of the chromogenic substrate is cleaved by  $\beta$ -glucosidase possessed by Enterococci resulting in formation of blue colonies. E.coli produce pink colonies due to the enzyme  $\beta$ -D-galactosidase that cleaves the other chromogenic substrate. Further confirmation of E.coli can be done by performing the indole test. Coliforms produce purple coloured colonies due to cleavage of both the chromogenic substrate. Colonies of Proteus, Morganella and Providencia species appear brown because of tryptophan deaminase activity. Peptic digest of animal tissue or peptone special provides nitrogenous, carbonaceous compounds and other essential growth nutrients. This medium can be made selective by supplementation with antibiotics for detecting microorganisms associated with hospital borne infections

**COMPOSITION:**

Ingredients	Gr/Liter
Peptic digest of animal tissue	15 gr
Chromogenic mixture	26,8 gr
Agar	15 gr

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

pH: 6,8  $\pm$  0,2

**PRECAUTIONS:**

For professional use only. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or other signs of deterioration.

**TEST PROCEDURE:**

Related samples can be processed by direct streaking on the plate, as well as prior appropriate enrichment step.

- If the agar plate has been refrigerated, allow to warm to room temperature before inoculation.
- Streak sample onto plate.
- Incubate in aerobic conditions at 35°C  $\pm$  2 for 24 hours.

**QUALITY CONTROL:****1.Sterility Control:**

Incubation 48 hours at 30-35°C and 72 hours at 20-25°C: NO GROWTH

**2.Physical/Chemical Control**

pH: 6,8  $\pm$  0,2

Apperance: Light amber

### 3. Microbiological Control: Cultural response on UTI Agar at 35°C ± 2 after 24 h incubation.

Microorganism	Inoculum (CFU)	Results	
		Growth	Reaction
Enterococcus faecalis ATCC 29212	10-100	Good	Blue, small
Escherichia coli ATCC 25922	10-100	Good	Pink-purple
Klebsiella pneumoniae ATCC 13883	10-100	Good	Blue to purple, mucoid
Pseudomonas aeruginosa ATCC 27853	10-100	Good	Colourless
Proteus mirabilis ATCC 12453	10-100	Good	Light brown
Staphylococcus aureus ATCC 25923	10-100	Good	Golden yellow

### STORAGE CONDITIONS AND SHELF LIFE:

Store the prepared medium at 2 - 12°C. Use before expiry date on the label. Do not use beyond stated expiry date.

### DISPOSAL:

Incubated prepared medium may contain active bacteria and micro-organisms. Do not open infected medium. Infected plate should be autoclaved, incinerated or opened and soaked in a chlorine-based disinfectant (liquid bleach) for 20 minutes prior to disposal.

### PACKAGING:

**Katalog Number:** 02128

**Packaging:** Single wrap

**Content:** 10 plates/each package

### REFERENCES:

1. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
2. Pezzlo M., 1998, Clin. Microbiol. Rev., 1:268-280.
3. Wilkie M. E., Almond M. K., Marsh F. P., 1992, British Medical Journal 305:1137-1141.
4. Friedman M. P. et al, 1991, J. Clin. Microbiol., 29:2385-2389.
5. Murray P., Traynor P. Hopson D., 1992, J. Clin. Microbiol., 30:1600-1601.
6. Soriano F., Ponte C., 1992, J. Clin. Microbiol., 30:3033-3034.
7. Merlino et al, 1995, Abstr. Austr. Microbiol. 16(4):17-3.



Aseptic Sterile



Batch Code



Catalogue Number



Negative Controls



Positive Controls



Use by



Temperature Limitation



Do not reuse



Contains sufficient for <n> tests



Look at user manual



Manufacturer