

## Urea Indole Medium

LQ126

### Intended Use

To differentiate micro-organisms especially *Enterobacteriaceae* on the basis of their ability to hydrolyze urea and indole production.

### Composition\*\*

Ingredients	g / L
L- Tryptophan	3.000
Sodium chloride	5.000
Potassium dihydrogen phosphate	1.000
Dipotassium hydrogen phosphate	1.000
Urea	20.000
Phenol red	0.012

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

### Directions

Label the ready to use LQ126 bottle. Unscrew the cap and inoculate the sample. Incubate at specified temperature and time.

### Principle and Interpretation

Strains of *Enterobacteriaceae* are associated with abscesses, pneumonia meningitis, septicemia and infections of wounds, the urinary tract and the intestine. They are a major component of the normal intestinal flora of humans but are relatively uncommon at other body sites. Of clinically significant isolates, *Enterobacteriaceae* may account for 80% of gram-negative bacilli and 50% of all clinically significant isolates in clinical microbiology laboratories (1). Urea Indole Medium is used for the identification of *Enterobacteria* on the basis of urease and indole production and the transdeamination of tryptophan.

This medium is very useful in the identification of *Proteus* species from *Salmonella* and *Shigella* species. The results for urease production should be noted prior to indole reaction, as addition of Kovacs reagent, decolourizes the medium, due to drop in pH. L- Tryptophan is an essential amino acid and is converted to skatole and indole, which is detected by the addition of Kovacs Reagent (R008). Sodium chloride maintains the osmotic balance. The phosphates helps in the buffering of the medium. Microorganisms that possess the enzyme urease hydrolyse urea, releasing ammonia, which is detected by the pH indicator phenol red. The alkalinity so developed imparts pink colour to the medium (2).

### Type of specimen

Isolated Microorganisms from clinical samples

### Specimen Collection and Handling

For clinical samples follow appropriate techniques for handling specimens as per established guidelines (3,4).

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

### Warning and Precautions

In Vitro diagnostic Use only. For professional 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. All urea test media rely on the alkalinity formation and so they are not specific for determining the absolute rate of urease activity.
2. Further biochemical and serological tests must be carried out for complete identification.

### Performance and Evaluation

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

## Quality Control

### Appearance

Sterile clear Urea Indole Medium in bottles.

### Colour

Light orange coloured medium

### Quantity of medium

3 ml of medium in bottles.

### pH of the medium

6.60- 7.00

### Sterility Check

Passes release criteria

### Cultural Response

Cultural characteristics observed after incubation at 35-37°C for 18-24 hours.

Organism	Inoculum (CFU)	Growth	Urease	Indole
<i>Escherichia coli</i> ATCC 25922 (00013*)	50-100	luxuriant	Negative reaction, no change	Positive reaction, red colour at the interface of the medium after addition of Kovacs reagent (R008)
<i>Proteus mirabilis</i> ATCC 12453	50-100	luxuriant	Positive reaction, Pink colour	Negative reaction, no change
## <i>Proteus hauseri</i> ATCC 13315	50-100	luxuriant	Positive reaction, Pink colour	Positive reaction, red colour at the interface of the medium after addition of Kovacs reagent (R008)
<i>Salmonella</i> Typhimurium ATCC 14028 (00031*)	50-100	luxuriant	Negative reaction, no change	Negative reaction, no change

Key : (\*) Corresponding WDCM numbers.

## Formerly known as *Proteus vulgaris*

## Storage and Shelf Life

On receipt store between 2-8°C. Use before expiry date on the label. Product performance is best if used within stated expiry period.

## 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 (3,4).

## Reference

1. Patrick R. Murray et al, Manual of Clinical Microbiology, Sixth Edition, 444 - 445.
2. Roland F. Bourbon D, Sztrum S. Ann. Inst. Pasteur, 73. 914-916.
3. Isenberg, H.D. Clinical Microbiology Procedures Handbook 2nd Edition.
4. Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock., D.W. (2015) Manual of Clinical Microbiology, 11th Edition. Vol. 1.

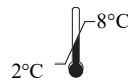
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HiMedia Laboratories Pvt. Limited,  
Plot No.C-40, Road No.21Y,  
MIDC, Wagle Industrial Area,  
Thane (W) -400604, MS, India



**IVD** *In vitro* diagnostic  
medical device



**Storage temperature**



CEpartner4U, Esdoornlaan 13,  
3951DB Maarn, NL  
[www.cepartner4u.eu](http://www.cepartner4u.eu)



**CE** Marking



**Do not use if  
package is damaged**

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