UREA AGAR

Ready to use tubes

Urea Agar – from left: *E.coli* urease neg., *P. mirabilis* urease pos.

INTENDED USE

Ready to use medium for the differentiation of a variety of microorganisms on the basis of urease production.

TYPICAL FORMULA (g/l)

Peptone	1.000
Glucose	1.000
Sodium Chloride	5.000
Potassium Dihydrogen Phosphate	2.000
Phenol Red	0.012
Agar	12.000
Urea	20.000

Final pH 6.8 ± 0.2

DESCRIPTION

Urea Agar base is prepared according to the formulation recommended by ISO/DIS 6579. Urea Agar Base is used to detect the production of urease by *Proteus*, *Klebsiella* and certain yeasts, such as *Cryptococcus* and as an identification test for the differentiation of *Salmonella* spp. (urease negative).

TECHNIQUE

Streak the agar slope surface with the pure culture to be tested. Do not inoculate the butt, to have the control colour of the negative reaction. Incubate at 37°C for 18-24 hours and examine at intervals. If the reaction is positive, splitting of urea liberates ammonia, which changes the colour of phenol red to rose-pink and later to deep cerise. The reaction is often apparent after 2-4 hours.

LIMITATIONS

To facilitate growth and urea hydrolysis do not use inoculum from a broth suspension. After prolonged incubation times a false positive alkaline reaction may occur. To rule out this occurrence check the test with a control (uninoculated tube). To detect *Proteus* spp. Urea Agar slant must be examined within 6 hrs of incubation. *C.freundii* and *K.pneumoniae* may convert urea within 24-48 hours. This medium detects rapid urease activity of only the urease poisitive *Proteeae*. Medium cannot be used to determine the absolute rate of urease activity.

STORAGE
Store at 2-8° away from direct light - When stored as directed the tubed media remain stable until the expiry date shown on the label. Do not use beyond stated expiry date. Media should not be used if there are any signs of deterioration, discoloration or contamination.

PRECAUTIONS
For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilize all biohazard waste before disposal.

REFERENCES
• Christensen, W.B. (1946). J. Bact., 52, 461-466
• ISO/DIS 6579 Microbiology of food and animal feeding stuffs - Horizontal method for the detection of *Salmonella* spp. 2000.

PACKAGING

552175	**Urea Agar,**	**20 ready to use slanted tubes**