

## TM 629 - UREA AGAR BASE W/O AGAR (FILTER STERILIZABLE)

### INTENDED USE

For detection of urea splitting microorganisms.

### PRODUCT SUMMARY AND EXPLANATION

Urea Agar Base is formulated in accordance with Christensen formulation. Rustigian and Stuart had originally formulated a medium to detect urease activity. However, these media differentiate between rapid urease positive *Proteus* species and other urease positive organisms like *Citrobacter*, *Enterobacter* and *Klebsiella* and bacteria other than *Enterobacteriaceae*.

### COMPOSITION

Ingredients	Gms / Ltr
Dextrose	1.000
Peptic digest of animal tissue	1.000
Sodium chloride	5.000
Monopotassium phosphate	2.000
Urea	20.000
Phenol red	0.012

### PRINCIPLE

Heavy inoculum of growth is inoculated on the surface of the slants. When urea is utilized, ammonia is formed during incubation which makes the medium alkaline, showing a pink-red colour by the change in the phenol red indicator. Prolonged incubation may cause alkaline reaction in the medium. Check using medium without urea as the negative control.

### INSTRUCTION FOR USE

- Dissolve 29.01 grams in 100 ml distilled water.
- Mix thoroughly to dissolve completely.
- Sterilize by filtration, do not boil or autoclave.
- Suspend 15 grams of agar in 900 ml distilled water and dissolve completely by boiling.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 50-55°C and mix with 100 ml filter sterilized Basal medium.
- Mix well and aseptically dispense in sterile tubes to prepare a 3 cm slant and 2 cm deep butt. Do not heat or overheat the medium as urea gets decomposed very easily.

### QUALITY CONTROL SPECIFICATIONS

**Appearance of Powder** : Light orange coloured homogeneous free flowing powder.  
**Appearance of prepared medium** : Orange coloured clear to slightly opalescent gel as slants.  
**pH (at 25°C)** : 6.8±0.2

### INTERPRETATION

Cultural characteristics observed after an incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Urease	Incubation Temperature	Incubation Period
<i>Escherichia coli</i>	25922	50-100	Good-luxuriant	Negative reaction, no change	35-37°C	18-24 Hours
<i>Enterobacter aerogenes</i>	13048	50-100	Good-luxuriant	Negative reaction, no change	35-37°C	18-24 Hours
<i>Klebsiella pneumoniae</i>	13883	50-100	Good-luxuriant	Weakly positive	35-37°C	18-24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Good-luxuriant	Positive reaction, cerise colour	35-37°C	18-24 Hours
<i>Salmonella Typhimurium</i>	14028	50-100	Good-luxuriant	Negative reaction, no change	35-37°C	18-24 Hours

**PACKAGING:**

In pack size of 500 gm bottles.

**STORAGE**

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

**Product Deterioration:** Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

**DISPOSAL**

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

**REFERENCES**

1. Christensen, W.B., 1946, J. Bact., 52:461.
2. MacFaddin J., 1980, Biochemical Tests for Identification of Medical Bacteria, 2nd ed., Williams and Wilkins, Baltimore.
3. Rustigian and Stuart, 1941, Proc. Soc. Exp. Biol. Med., 47:108.



 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative <small>MedNet GmbH Buckstrasse 10, 48163 Münster, Germany</small>	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

**NOTE:** Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

**\*For Lab Use Only**  
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