

MM0066

Urea Agar Base

Use and description:

Media used for the detection of *Proteus* species, based on urease activity and for the identification of other members of the Enterobacteriaceae based on urease activity. Urease-positive bacteria produce ammonia, which increases the pH, so cause colour-changing of phenol red from orange to purple.

Composition per liter:

Agar.....	15.200 g
Sodium chloride.....	5.000 g
Disodium hydrogen phosphate.....	1.200 g
Peptone.....	1.000 g
Glucose.....	1.000 g
Potassium dihydrogen phosphate.....	0.800 g
Phenol red.....	0.012 g

Final pH of the ready to use medium: 6.8 ± 0.2

Medium preparation:

Add 24.7 grams of dehydrated culture medium to 950 mL of distilled water. Bring to the boil to dissolve completely. Autoclave at 121.0°C for 15 minutes. Cool the agar base to 45 to 50°C and aseptically add the 50 mL filter-sterilised Urea solution. Mix thoroughly and dispense into sterile tubes.

Quality specification:

Dehydrated medium: homogeneous, creamy, fine powder.

Ready to use medium: yellow/pale pink, translucent.

Microbiological response:

Organism	Urease reaction
<i>Escherichia coli</i> ATCC 25922	-
<i>Enterobacter aerogenes</i> ATCC 13048	-
<i>Salmonella typhimurium</i> ATCC 14028	-
<i>Klebsiella pneumoniae</i> ATCC 13883	+ (pink)
<i>Proteus vulgaris</i> ATCC 13315	+ (pink)

Storage:

Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or the color has changed from the original.