

Urea Broth Base (Christensen) (NCM0177)

Intended Use

Urea Broth Base is for the detection of urease production, and is not intended for use in the diagnosis of disease or other conditions in humans.

Description

This is a liquid version of Christensen's medium (NCM0180) introduced by Maslen in 1952. This modification allows inoculation by Pasteur pipette, and it is easier to detect contamination in a fluid rather than in a slope. Maslen also claimed that it is easier to detect positive results.

Typical Formulation

Peptone	1.0 g/L
Glucose	1.0 g/L
Disodium Phosphate	1.2 g/L
Potassium Dihydrogen Phosphate	0.8 g/L
Sodium Chloride	5.0 g/L
Phenol Red	0.004 g/L

Supplement

X130 Urea 40% 5ml – 1 vial per 95ml
Or X135 Urea 40% 100ml – 1 vial per 1.9L

Final pH: 6.8 ± 0.2 at 25°C

Formula may be adjusted and/or supplemented as required to meet performance specifications.

Precaution

1. Refer to SDS

Preparation

1. Dissolve 0.9 grams of the medium in 95ml of purified water.
2. Heat with frequent agitation to completely dissolve the medium if necessary.
3. Autoclave at 121°C for 15 minutes.
4. Cool to 45-50°C then add aseptically 5ml of X130/X135 sterile urea solution.

Test Procedure

- Fluid culture by Pasteur pipette or straight wire from pure growth.
- Incubate at 37°C for 4-6 hours – preferably in a water bath for most rapid growth, aerobically.

Quality Control Specifications

Prepared Appearance: Prepared medium is clear and yellow.

Minimum QC:

Proteus mirabilis ATCC 29906/ WDCM 00023.

Escherichia coli NCIMB 50034

Technical Specification Sheet



Results

Organism Growth Characteristics		
<i>Proteus</i> spp.	Red color	4-6 hours
Some strains: <i>Klebsiella</i> , <i>Escherichia</i> , <i>Staphylococcus</i>	Red color	18-24 hours

Expiration

Refer to expiration date stamped on the container. The dehydrated medium should be discarded if not free flowing or appearance has changed from the original color. Expiry applies to medium in its intact container when stored as directed.

Limitations of the Procedures

Due to nutritional variation, some strains may be encountered that grow poorly or fail to grow on this medium.

Storage

Store dehydrated culture media at 2-30°C away from direct sunlight. Once opened and recapped, place container in a low humidity environment at the same storage temperature. Protect from moisture and light by keeping container tightly closed.

References

1. Maslen L.G.C. (1952). Routine use of liquid urea medium for identifying Salmonella and Shigella organisms. J. Brit. Med. 2: 545-546.

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