Chaitanya Group Of Industries

ReadyMED®
Dehydrated Cell Culture Media

Technical Data Sheet

Urea Indole Medium RDM-UIM-01

Principle
Urea indole medium is composed of L-tryptophan, sodium chloride, monobasic potassium phosphate, dibasic potassium phosphate, urea and phenol red. L-tryptophan provide essential amino acid. Sodium chloride maintain osmatic balance. The monobasic and dibasic phosphates are buffering agents. Urea is substrate for urease enzyme and phenol red is pH indicator dye. the urea hydrolyzing bacteria produce urease enzyme leads to increase in pH of medium, resulting medium turns pink. While non urease producing bacterial medium remain light orange colored. The indole producing bacteria convert L-tryptophan to skatole and indole, which is detected with the help of Kovacs reagent. The appearance of a pink to red color in the reagent is interpreted as a positive indole test. Both the test must be performed in two different test tubes. If single tube is inoculated, the results for urease production should be noted prior to indole reaction, as addition of Kovacs reagent, decolorizes the medium, due to drop in pH.

Use: Recommended for differentiation of micro-organisms especially *Enterobacteriaceae* on the basis of their ability to hydrolyze urea and indole production.

Contents*

Ingredients	**Gram/Litre**
L-Tryptophan	3.000
Sodium Chloride	5.000
Monobasic Potassium Phosphate	1.000
Dibasic Potassium Phosphate	1.000
Urea	20.000
Phenol Red	0.012
pH at 25˚C	6.8 ±0.2

* Formula adjusted for optimum performance and parameters

Directions: Dissolve 30.00 grams in 1000 ml distilled water. Mix gently till all the ingredients dissolve completely. Filter sterilize the medium (DO NOT AUTOCLAVE) and distribute aseptically in sterile test tube and inoculate test sample aseptically.

Specimens types analyzed
Pharmaceutical samples, clinical and non-clinical samples urine samples etc.

Precautions to be taken
These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.

Performance and Evaluation
The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.

Quality Control

Appearance	Tan colored free flowing, homogeneous powder
Reaction of 3.0% solution	6.8 ±0.2 at 25 ˚C

pH	6.60- 7.00
Color and clarity of ready medium	Light orange colored clear solution
Growth Promotion properties	Best at ≤ 100 CFU at 32-37 ºC for 18-72 h
Indicative properties	Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h
Negative control	Performed using sterile distilled water

Different Microbial Response

Organism	Inoculum	Growth	Urease production	Indole production	Incubation period
Proteus vulgaris (ATCC 13315)	50-100	Luxurious	Pink color positive reaction	Positive Pink to red color	33-37 ℃, 18-24 h
Salmonella typhimurium (ATCC 14028)	50-100	Luxurious	Negative reaction	Negative	33-37 ℃, 18-24 h

Storage and Shelf Life

Hygroscopic; keep container tightly closed. Store in cool dry place.

Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.

Reference

1. 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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