UREA INDOLE MEDIUM (ISO) TM 1850

INTENDED USE

For differentiation of microorganism especially Enterobacteriaceae on the basis of their ability to hydrolyze urea and indole production

COMPOSITION

Ingredients	Gms/Ltr.
Urea	20.000
Sodium chloride	5.000
L-Tryptophan	3.000
Potassium dihydrogen phosphate	1.000
Dipotassium hydrogen phosphate	1.000
Phenol red	0.025

PRODUCT SUMMARY AND EXPLANATION

This medium formulation is as per ISO and is recommeded for the confirmation of *Yersinia* on the basis on urease reaction and indole reaction. *Yersinia* gives a positive urease reaction. Some biovars of *Yersinia* are indole positive while some give negative reaction. Urea Indole Medium is also used for the identification of Enterobacteria on the basis of urease and indole production and the transdeamination of tryptophan. The results for urease production should be noted prior to indole reaction, as addition of Kovacs reagent, decolourizes the medium, due to drop in pH.

PRINCIPLE

L- Trypytophan is an essential amino acid and is converted to skatole and indole, which is detected by the addition of Kovacs Reagent (TR008). Sodium chloride maintains the osmotic balance. The phosphates help in the buffering of the medium. Microorganisms that possess the enzyme urease hydrolyse urea, releasing ammonia, which is detected by the pH indicator phenol red.

INSTRUCTION FOR USE

1. Dissolve 30.03 grams in 1000 ml distilled water.
2. Dissolve the medium completely and sterilize by filtration.
3. DO NOT AUTOCLAVE.
4. Aseptically, dispense into sterile tubes.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder: Light yellow to light pink COLOUR, homogeneous free flowing powder

Appearance of prepared medium: Yellow to light orange colour, clear solution

pH (at 25°C): 6.9 ± 0.2

INTERPRETATION:

Culture characteristics observed after incubation period of 18 - 48 hours at 35 ± 2°C.

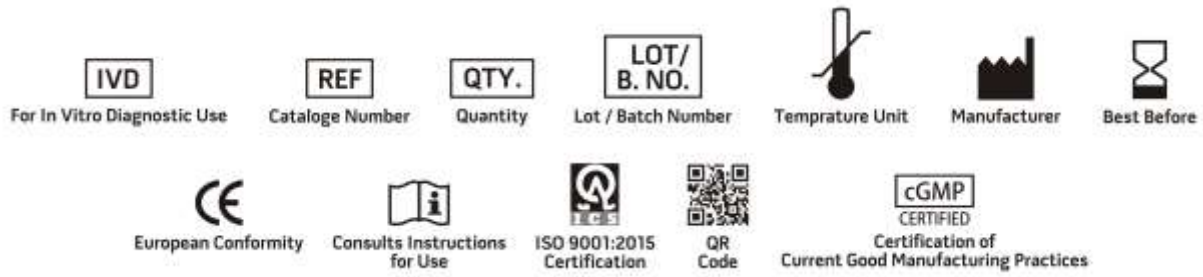
Microorganisms	ATCC	Inoculum (CFU)	Growth	Urease production
Escherichia coli	25922	50-100	Luxuriant	Negative, no change
Salmonella typhimurium	14028	50-100	Luxuriant	Negative, no change
Proteus vulgaris	13315	50-100	Luxuriant	Positive, Pink colour
Proteus mirabilis	12453	50-100	Luxuriant	Positive, Pink colour

STORAGE & STABILITY

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°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.

REFERENCES

1. Roland F. Bourbon D, Sztrum S. Ann. Inst. Pasteur, 73. 914-916.
2. Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of presumptive pathogenic Yersinia enterocolitica.



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