Tryptone Water (Tryptone Broth)

Intended Use
Tryptone Water is used for the detection of indole production by coliforms.

Summary
Tryptone Water is recommended by APHA and ISO Committee for detection of indole production by coliforms, which is a key feature in differentiation of bacteria. A slight modification of Tryptone Water is recommended by ISO committee for the same purpose. This test demonstrates the ability of certain bacteria to decompose the amino acid tryptophan to indole which accumulates in the medium.

Principle
Tryptone is a good substrate for indole production because of its high tryptophan content. Certain organisms breakdown the amino acid tryptophan with the help of enzymes that mediate the production of indole by hydrolytic activity. The indole produced can be detected by either Kovac's or Ehrlich's reagent. Indole combines with the aldehyde present in the above reagent to give red colour in the alcoholic layer. The alcohol layer extracts and concentrates the red colour complex.

Formula*

Ingredients	**g/L**
Tryptone	10.0
Sodium Chloride	5.0
Final pH (at 25°C)	7.5 ± 0.2

*Adjusted to suit performance parameters.

Storage and Stability
Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Specimen Collection and Handling
Ensure that all samples are properly labelled.
Follow appropriate techniques for handling samples as per established guidelines.
Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.
The samples must be stored and tested within the permissible time duration.
After use, contaminated materials must be sterilized by autoclaving before discarding.

Directions
1. Suspend 15.00 g of the powder in 1000 mL purified / distilled water.
2. Mix thoroughly.
3. Heat if necessary to dissolve the powder completely.
4. Dispense in tubes as per requirements.
5. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.

Quality Control
Dehydrated Appearance: Yellow coloured, homogenous, free flowing powder.
Prepared Appearance: Light yellow to yellow coloured, clear solution without any precipitate.
Cultural Response: Cultural characteristics observed after an incubation of 18-24 hours at 30°C-35°C.

Organism (ATCC)	**Growth**	**Indole Test**
Escherichia coli (25922)	Good	Positive reaction, Red ring at the interface of the medium
Escherichia coli (8739)	Good	Positive reaction, Red ring at the interface of the medium
Klebsiella aerogenes (13048)	Good	Negative reaction, No red ring at the interface of the medium

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Precautions/Limitations

Indole testing is recommended as an aid in the differentiation of microorganisms based on indole production. For complete identification of the organisms, further biochemical confirmation is necessary.

Warranty

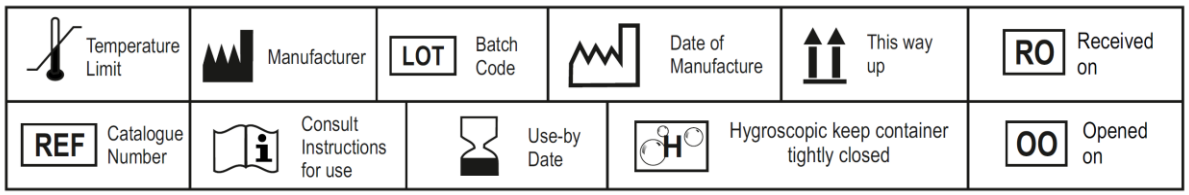
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

References

1. Greenberg A. E., Clesceri L. S. and Eaton A. D., (Eds.), 1998, Standard Methods for the Examination of Water and Wastewater, 20th Ed., APHA, Washington, D.C.
2. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 9308-1.
3. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 7251:1993.
4. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
5. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Williams and Wilkins, Baltimore.
6. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.
7. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201200340100	Dehydrated Culture Media	100 g
201200340500	Dehydrated Culture Media	500 g
201200342500	Dehydrated Culture Media	2.5 K
201200345000	Dehydrated Culture Media	5 K



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Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.