TM 1110 – TRYPTONE WATER

INTENDED USE
For detection of indole production by microorganisms.

PRODUCT SUMMARY AND EXPLANATION
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. Tryptone Water is used in conjunction with Brilliant Green Bile Broth 2 % to determine the most probable number (MPN) of *E. coli* in food sample.
Growth and gas production and indole production in Tryptone Water following incubation of both media at 44 ± 1°C is used as the basis for the presumptive *E. coli* test. For determination of indole, inoculate the medium with inoculum of an 18-24 hours pure culture. Incubate the tubes at 35 ± 2°C for 18-24 hours. Add 0.5 ml of indole reagent directly to the tube and agitate. Allow the tubes to stand for 5-10 minutes. Formation of red ring at the top of the tube indicates indole production. 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.

COMPOSITION

Ingredients	Gms / Ltr
Casein enzymic hydrolysate	20.000
Sodium chloride	5.000

PRINCIPLE
Casein enzymic hydrolysate 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 Kovacs or Ehrlichs 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.

INSTRUCTION FOR USE
- Dissolve 25 grams in 1000 ml distilled water.
- Heat if necessary to dissolve the medium completely.
- Dispense into tubes and sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.

QUALITY CONTROL SPECIFICATIONS
Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Yellow coloured clear solution without any precipitate.
pH (at 25°C) : 7.5±0.2

INTERPRETATION
Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU)	Growth	Indole reaction	Incubation Temperature	Incubation Period

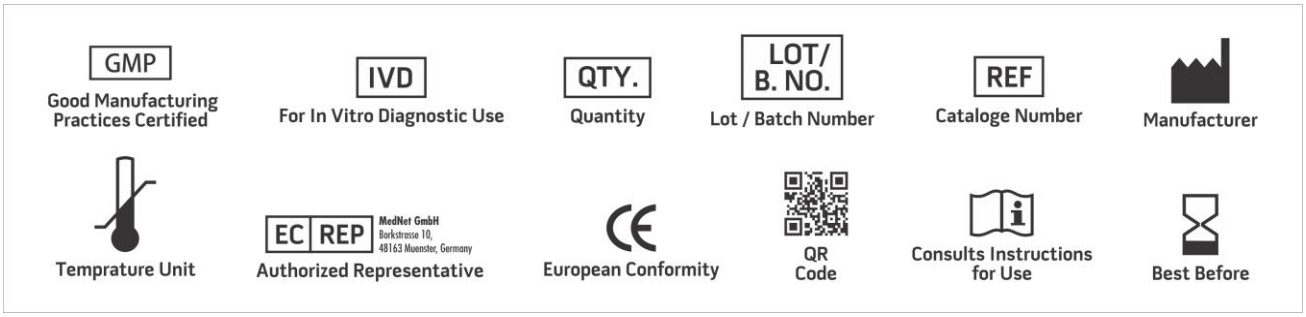
Escherichia coli	25922	50-100	Luxuriant	Positive reaction, red ring at the interface of the medium	35-37°C	24 Hours
Enterobacter aerogenes	13048	50-100	Luxuriant	Negative reaction, no colour development / cloudy ring	35-37°C	24 Hours

PACKAGING:
In pack size of 500 gm bottles.

STORAGE
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°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.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL
After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES
1. Finegold S. M. and Baron E. J., 1986, Bailey and Scotts Diagnostic Microbiology, 7th Ed., The C.V. Mosby Co., St. Louis.
2. 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.
3. International Organization for Standardization (ISO), 1993, Draft ISO/DIS 9308-1.
4. International Organization for Standardization (ISO), 1990, Draft ISO/DIS 7251:1993.
5. Collee J. G., Fraser A. G., Marmion B. P., Simmons A., (Eds.), Mackie and McCartney, Practical Medical Microbiology, 1996, 14th Edition, Churchill Livingstone.
6. MacFaddin J. F., 2000, Biochemical Tests for Identification of Medical Bacteria, 3rd Ed., Williams and Wilkins, Baltimore.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.
***For Lab Use Only**
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