Tryptone Water

For the detection of microbial indole formation when identifying microorganisms by biochemical methods.

This culture medium is recommended by the International Organization for Standardization (ISO) (1975) for the detection of E. coli in the examination of meat and meat products. It can be used instead of Tryptophane Broth recommended in the Standard Methods for the Examination of Water and Wastewater (1992). The medium also complies with the APHA (1998) recommendations for food examination.

Mode of Action

Peptone from casein (= tryptone) contains a high proportion of tryptophane which is degraded by indole-positive organisms to form indole. Indole can be detected with KOVACS Indole Reagent.

Typical Composition (g/litre)

Peptone from casein 10.0; sodium chloride 5.0.

Preparation

Suspend 15 g/litre, dispense into tubes, autoclave (15 min at 121°C).

pH: 7.3 ± 0.2 at 25 °C.

The prepared broth is clear and yellowish.

Experimental Procedure and Evaluation

Inoculate the tubes with pure cultures of the microorganisms to be tested.

Incubation: 24 hours at 35 °C aerobically.

Cover the medium with a 0.5 cm layer of KOVÁCS Indole Reagent. If the culture is indole-positive, the reagent turns cherry red in colour after a few minutes.

Literature

American Public Health Association: Compendium of methods for the microbiological examination of foods. – 3rd ed. (1992).

American Public Health Association, American Water Works Association, Water pollution Control Federation: Standard Methods for the Examination of Water and Wastewater, 20th ed., Washington, 1998.

International Organization for Standardization: Meat and meat products. – Detection and enumeration of presumptive coliform bacteria and presumptive Escherichia coli (Reference method). – **Draft International Standard ISO/DIS 3811** (1975).

Ordering Information

Product	Merck Cat. No.	Pack size
Tryptone Water	1.10859.0500	500 g
Bactident® Indole (dropper bottle)	1.11350.0001	1 x 30 ml
KOVÁCS Indole Reagent	1.09293.0100	100 ml

Quality control

Test strains	Growth	Indole formation
Escherichia coli ATCC 25922	good / very good	+
Proteus vulgaris ATCC 13315	fair / good	+
Morganella morganii ATCC 25830	fair / good	+
Enterobacter cloacae ATCC 13047	good / very good	-
Salmonella typhimurium ATCC 14028	fair / very good	-
Staphylococcus aureus ATCC 25923	fair / good	-