

Specification

Substrate for dilution and non-selective enrichments in microbiology and for the research of indole production in coliforms formulated according to ISO 7251 standard.

Presentation

20 Tubes
Tube 16 x 113 mm
with: 10 ± 0,2 ml

Packaging Details

1 box with 20 tubes, 16x113 mm glass tubes, ink
labelled and metal-Non injectable cap.

Shelf Life

12 months

Storage

8-25°C

Composition

Composition (g/l):

Peptone from casein (Tryptone).....10.0

Sodium chloride.....5.00

Description /Technique

Description:

The culture medium contains tryptone with sufficient amount of tryptophan to determine the indole test.

Technique

The standard protocol requires that one loop from each suspected tube is inoculated into 5-10 mL of Tryptone Water.

Incubate for 48 hours at 44°C before investigating the indol production with Kovacs' Reagent for Indol.

As an alternative method, Ehrlich's Reagent can also show indol production. After 48 hours of incubation at 37°C, take 0,5 mL of growth and mix it with 0,5 mL of Ehrlich's Reagent. Let them settle a few minutes. A pink colour indicates a positive test. Colour appearance is accelerated if a few drops of a saturated solution of potassium per-sulfate is added. Other authors prefer extraction and concentration of indol with 1 mL of Ether prior to addition of reagent.

Quality control

Physical/Chemical control

Color : Yellowish

pH: 7.2 ± 0.2 at 25°C

Microbiological control

Inoculate with 10³ - 10⁴ UFC for qualitative assay.

Aerobiosis. Incubation at 44 °C± 0,5. Reading at 48h ± 2h.

Microorganism

Escherichia coli ATCC® 25922, WDCM 00013

Escherichia coli ATCC® 8739, WDCM 00012

Salmonella typhimurium ATCC® 14028, WDCM 00031

Proteus hauseri ATCC® 13315 (37°C)

Proteus hauseri ATCC® 13315 (44°C)

Growth

Good - Positive Indole

Good - Positive Indole

Good- Negative Indol

Good - Positive Indole

Inhibited

Sterility Control

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

Bibliography

- APHA-AWWA-WEF (1998) Standard Methods for the examination of water and wastewater. 20th ed. APHA. Washington. DC.
- ATLAS, R.M. & L.C. PARKS (1993) Handbook of Microbiological Media. CRC Press Inc. London.
- DOWNES, F.P. & K. ITO (2001) Compendium of Methods for the Microbiological Examination of Food. 4th ed. APHA. Washington.
- ISO 7251 Standard (2005) Microbiology of food and animal feeding stuffs - Horizontal method for the detection and enumeration of presumptive *Escherichia coli* - Most Probable Number Technique.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.