

Specification

Substrate with low nutrient capacity, for the detection of indol production in coliform microorganisms according to ISO 7251 standard.

Formula * in g/L

Casein peptone..... 10,0
Sodium chloride..... 5,0

Final pH 7.3 ±0,2 at 25 °C

* Adjusted and /or supplemented as required to meet performance criteria

Directions

Dissolve 15 g of powder in 1 L of distilled water and dispense into suitable containers. Sterilize in the autoclave at 121°C for 15 minutes.

Description

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

Incubation temperature: 44°C ± 0,5 **Incubation time:** 44h ±4 h
Inoculum: ≥ 10³ CFU (specificity) according to ISO 11133:2014/Amd 1:2018 & Adm 2:2020. Add Kovacs Reagent after growth

Microorganism	Growth	Remarks
<i>Salmonella typhimurium</i> ATCC® 14028	Good	Indol (-)
<i>Escherichia coli</i> ATCC® 8739	Good	Indol (+)
<i>Escherichia coli</i> ATCC® 25922	Good	Indol (+)
<i>Proteus hauseri</i> ATCC® 13315	Good	Indol (+) 37°C
<i>Proteus hauseri</i> ATCC® 13315	Inhibited	No growth 44°C

References

- 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.

Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4 °C to 30 °C).