



## PRODUCT DATA SHEET

### LACTOSE TTC AGAR (WITH SODIUM HEPTADECYL SULPHATE (as per ISO) TM 1251

For the detection and enumeration of *E.coli* and other coliforms by membrane filtration technique

#### Composition

Ingredients	Gms/Ltr.
Lactose	20.00
Agar	15.00
Peptone	10.00
Yeast extract	6.00
Beef extract	5.00
Sodium heptadecyl sulphate	0.10
Bromothymol blue	0.050

\* Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct Sunlight.

#### Instructions for Use

Dissolve 56.15gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (121°C) for 15 minutes. Cool to 45-50°C and aseptically add 3ml of TTC SOLUTION 1% (TS 042). Homogenize gently and dispense into sterile Petri plates.

**Appearance:** Light blue green in colour, clear  
**pH (at 25°C):** 7.2 ± 0.2

#### Principle

LACTOSE TTC AGAR (WITH SODIUM HEPTADECYL SULPHATE (as per ISO) is used for the the detection and enumeration of *E.coli* and other coliforms by membrane filtration technique as recommended by ISO 9308-1. Medium contains Peptone, Beef extract and Yeast extract provides the nitrogen, carbon compounds, vitamins and amino acids. Lactose is the fermentable sugar. Sodium heptadecyl sulphate (Tergitol 7) helps in inhibiting most gram positive bacteria. Bromothymol blue is a pH indicator. Agar is a solidifying agent. Agar Plates are inoculated with two water samples taken on two membrane filters and incubated at 36 ± 2°C and 44 ± 4°C for a period of 21 ± 3 hours.

#### Interpretation

Cultural characteristics observed after inoculating (10<sup>3</sup>CFU/ml), on incubation at 36 ± 2°C and 44 ± 4°C for 21 ± 3 hours.

Microorganisms	ATCC	Inoculum (CFU/ml)	Growth at 44°C	Growth at 36°C	Appearance of colony
<i>Enterobacter aerogenes</i>	13048	10 <sup>3</sup>	No growth	Good	Red to dark yellow with orange centers
<i>Escherichia coli</i>	25922	10 <sup>3</sup>	Good	Good	Yellow with orange centers



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<i>Enterobacter sakazakii</i>	29544	10 <sup>3</sup>	Good	Good	Yellow with orange centers
<i>Klebsiella</i> sp.	-----	10 <sup>3</sup>	No growth	Good	Red to yellow colonies

### References

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3. Vanderzant, C., and D. F. Splittstoesser (eds.). Compendium of methods for the microbiological examination of foods, 3rd ed. American Public Health Association, Washington, D.C. (1992).
4. ISO 9308-1. Water quality. Detection and enumeration of *Escherichia coli* and coliform bacteria. PART.1. Membrane filtration method.
5. GUILLAUME-Gentil, O., Sonnard, V. Kandahai, M.C., Mauragg, J.D. and Jootsen, H. A simple and Rapad Cultural Method for Detection of *Enterobacter sakazakii* in environmental samples. Journal of Food. Protection, 68 (1), pp. 64-69. (2005).