

Technical Information

Soyabean Casein Digest Agar w/LTHTh, Modified

Product Code: DM 2835

Application: - Soyabean Casein Digest Agar w/LTHTh, Modified is recommended for determining efficiency of sanitization of container, equipment surfaces, water miscible cosmetics, etc. It can also enumerate the organisms from water insoluble products and fatty products containing preservatives or antimicrobials.

Composition**

Ingredients	Gms / Litre
Casein enzymic hydrolysate (Tryptone)	15.000
Soya peptone	5.000
Sodium chloride	5.000
Lecithin	3.000
Polysorbate 80 (Tween 80)	30.000
Histidine	1.000
Sodium thiosulphate	5.000
Agar	18.000
Final pH (at 25°C)	7.3±0.2

**Formula adjusted, standardized to suit performance parameters

Principle & Interpretation

Soyabean Casein Digest Agar w/ LTHTh is recommended for the detection and enumeration of microorganisms for products of sanitary importance, water miscible cosmetics, Products containing antimicrobials or preservatives (1)

Casein enzymic hydrolysate and soya peptone provide nitrogenous compounds and other nutrients essential for microbial replication. Lecithin, polysorbate 80 (Tween 80) and thiosulphate act as neutralizing agents reported to neutralize the activity of antimicrobial agents. Lecithin and polysorbate 80 neutralizes quaternary ammonium compounds and parahydroxy benzoates. Sodium thiosulphate neutralizes mercurial, halogens, aldehydes etc. Histidine acts as a reducing agent.

Collection of samples from areas before and after the treatment with disinfectant evaluates cleaning procedures in environmental sanitation. The presence and number of microorganisms is determined by the appearance of colonies on the agar surface (2).

Methodology

Suspend 82.0 grams of dehydrated powder media in 1000 ml distilled water. Mix thoroughly & heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Shake well before pour into sterile Petri plates.

Quality Control

Appearance

Cream to yellow homogeneous free flowing powder

Gelling

Firm, comparable with 1.8% Agar gel

Colour and Clarity

Light to medium amber coloured, clear to slightly opalescent gel forms in Petri plates

Reaction

Reaction of 8.20% w/v aqueous solution at 25°C. pH : 7. ±0.2

pH Range

7.10-7.50

Cultural

DM 2835: culture characteristics observed after an incubation at 35-37°C for 18-24 hours.

Organism	Growth	Growth w/ disinfectant
<i>Escherichia coli</i> ATCC 25922	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)
<i>Pseudomonas aeruginosa</i> ATCC 27853	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)
<i>Staphylococcus aureus</i> ATCC 25923	luxuriant	fair-good, (depends on concentration of quarternary ammonium compounds)

Storage and Shelf Life

Dried Media: Store below 30°C in tightly closed container and the prepared medium at 2 - 8°C. Use before expiry date on the label.

Prepared Media: 2-8° in sealable plastic bags for 2-5 days.

Further Reading

- Hall and Hartnett, 1964, Public Hlth. Rep., 79:1021.
- Murray PR, Baron, Pfaller, and Tenover (Eds.), 2003, In Manual of Clinical Microbiology, 8th ed., ASM, Washington, D.C.

Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
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