Condalab

Reference: 4554 **Technical Data Sheet**

Product: **VRBG TLHTh AGAR**

Specification

Medium with neutralisers for the enumeration of Enterobacteria.

Presentation

	Packaging Details	Shelf Life	Storage
30 Contact Plates Contact Plates - Double Wrapping with: 15 ± 2 ml	1 box with 5 blisters (base of aluminium, PVDC and bag) with 6 contact plates/blister.	7 months	2-25 ºC

Composition

Composition (g/l):

Yeast extract	3.000
Peptone from gelatin	7.000
Bile salts mixture	1.500
D(+)Glucose	10.00
Sodium chloride	5.000
Neutral red	0.030
Crystal violet	0.002
Lecithine	0.700
Polysorbate 80	5.000
Histidin	1.000
Sodium Thiosulfate $5H_2O$	0.500
Agar	13.000

Description /Technique

Description

This medium is a modification of the Violet Red Bile Agar and the MacConkey Agar as described by Mossel et al. The addition of glucose to the Violet Red Bile Agar enhances both the growth of the most fastidious enterobacteria and the recovery of those having suffered from adverse conditions. Mossel himself realized that by removing the lactose and keeping the glucose, the medium's efficiency remained stable.

The addition of he neutralizing agents TLHTh (Tween 80 - Lecithin - Histidine - Sodium Thiosulphate) may inactivate a variety of disinfectants.

* The combination of lecithin, polysorbate 80 and histidine neutralizes aldehydes and phenolic compounds.
* The combination of lecithin and polysorbate 80 neutralizes the quaternary ammonium compounds.
* The polysorbate 80 neutralizes hexachlorophene and mercurial derivates.
* Sodium thiosulphate neutralizers halogen compounds.
* Lecithin neutralizes clorhexidine.
* Histidine neutralizes formaldehyde.

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Technique

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The plates come in a form appropriate for this function and can be used with different culture media depending on the type of microbe that needs to be controlled. On average the plates provide a contact surface of approximately 25 cm2.

To use, remove the cover and gently press the culture medium on the surface to be controlled, ensuring contact between the two surfaces. The Contact plate is removed and covered with the lid to prevent air contamination. It is advisable that the lid is secured with adhesive tape and the bottom labelled with the sampling data (place, date and time).

If the sample surfaces are rough, the contact plates will not make good contact, even when the pressure is increased. In these cases it is advisable to delineate an sample surface area of 25 cm squared and rub this area vigorously with a wet sterile swab and then rub the swab over the Contact plate.

If verifying the effectiveness of a cleaning or disinfection process, contact plates should be used within two hours after the end of the process, ensuring that the sample surface is dry. It is advisable to always include positive controls, sampling the area before disinfection or dirty areas beside the disinfected area.

The technician will determine the frequency of sampling and disinfection according to performance criteria. Apply the agar directly onto surface to be monitored ensuring that the pressure is distributed over the whole plate for 10 seconds. Clean the surface where the sample was collected in order to remove any traces of agar.

The inoculated plates are incubated at 35±2 º C for 24±2 hours and examined daily.

Note: Contact plates are used for monitoring the microbiological contamination of surface and air inside cleanrooms, isolators, RABS, food industries and hospitals.

Quality control

Physical/Chemical control

Color : Red - Brownish pH: 7.4 ± 0.2 at 25ºC

Microbiological control

Inoculate: 10-100 CFU accord. to Eur. Pharm. & 100 ± 20 CFU; min. 50 CFU (productivity)/ 10^4-10^6 CFU (selectivity) acc. to ISO.
Microbiological control according to ISO 11133:2014/A1:2018.
Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020

Aerobiosis. Incubation: 30-35 ºC. Reading at 24h (E.P.) / 37 ± 1 ºC. Reading at 24 h (ISO)

Note: results ATCC® 8739/6538/9027 (30-35 ºC) & ATCC® 8739/25922/19433/14028 (37 ºC).

Microorganism	Growth
Staphylococcus aureus ATCC® 6538, WDCM 00032	Inhibited
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥50%)- Red purple colonies
Ps. aeruginosa ATCC® 9027, WDCM 00026	Good (50%) -Colourless colonies
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good (≥50%)- Red purple colonies
Escherichia coli ATCC® 8739, WDCM 00012	Good (50%)- Red purple colonies - Biliar precipitate
Escherichia coli ATCC® 25922, WDCM 00013	Good (50%)- Red purple colonies - Biliar precipitate

Sterility Control

Incubation 48 hours at 30-35 ºC and 48 hours at 20-25 ºC: NO GROWTH.
Check at 7 days after incubation in same conditions.

Bibliography

· MOSSEL, D.A.A. (1985) Media for Enterobacteriaceae. Int. J. Food Microbiol. 2:27-35.
· MOSSEL, D.A.A., H. MENGERINK & H.H. SCHOLTS (1962) Use a Modified MacConkey Agar Medium for the selective growth and enumeration of all Enterobacteriaceae. J. Bact. 84:381.
· MOSSEL, D.A.A., M. VISER & A.M.R. CORNELISSEN (1963) The examination of foods for Enterobacteriaceae using a test of the type generally adopted for the detection of salmonellae. J. Appl. Bact. 26:444-452.
· MOSSEL, D.A.A. & M.A. RATTO (1970) Rapid detection of sub-lethally impaired cells of Enterobacteriaceae in dried foods. Appl. Microbiol. 20:273-275.
· PASCUAL ANDERSON, Mª R. (1992) Microbiología Alimentaria. Díaz de Santos, S.A. Madrid.