Condalab

Reference: 4691 **Technical Data Sheet**

Product: **MRS AGAR**

Specification

Solid culture medium for detection, isolation and cultivation of lactobacilli and other lactic acid bacteria from food and beverages according to de Man, Rogosa and Sharpe.

Presentation

	Packaging Details	Shelf Life	Storage
10 Prepared bottles Bottles 250 ml with: 200 ± 5 ml	1 box with 10 bottles 250 ml. Plastic screw inner cap.	12 months	8-25 ºC

Composition

Composición (g/l):

Peptone proteose	10.00
Meat extract	8.00
Yeast extract	4.00
D(+)-Glucose	20.00
Sodium acetate	5.00
Triammonium citrate	2.00
Magnesium sulfate	0.20
Manganese sulfate	0.05
Dipotassium phosphate	2.00
Polysorbate 80	1.00
Agar	14.00

PROTECT FROM LIGHT AT ALL TIME. AVOID PROLONG EXPOSURE ON LIGHT.

Description /Technique

Collect , dilute and prepare samples and volumes as required according to specifications, directives, official standard regulations and/or expected results.
Melt the medium contained in the bottles in a water bath or in a microwave oven, avoiding overhating, before pouring into Petri dishes when cooled to room temperature.
Once solidified on a flat surface, spread tha plate by streaking methodology or by spiral method. Incubate he plates right side up aerobically at 30±1ºC for 72 ±3h..
(Incubation times greater than those mentioned above or different incubation temperatures may be required depending on the sample, on the specifications...; adequate humidity and presence of carbon dioxide will stimulate the cultures. This medium can be inoculated directly or after enrichment broth like MRS broth, incubated under microaerophilic conditions to promote lactobacilli enrichment)
After incubation, enumerate all the colonies that have appeared onto the surface of the agar.
Each laboratory must evaluate the results according to their specifications.
Calculate total microbial count per ml of sample by multiplying the average number of colonies per plate by the inverse dilution factor if streaked a diluted sample. Report results as Colony Forming Unit (CFU's) per ml or g along with incubation time and temperature.

Note: The solid mediums can be melted in different ways: autoclave, bath and, if the customer considers appropriate, also the microwave. Whenever the microwave option is chosen, it is necessary to take certain safety measures to avoid breaking of the containers, such as loosening the screw cap and putting the bottle or tube in a water bath in the microwave. The fusion temperature and time will depend on the shape of the container, the volume of medium and the heat source. Avoid overheating as both the heating periods.

Quality control

Physical/Chemical control

Color : Yellowish-brown pH: 6.2 ± 0.2 at 25ºC

Microbiological control

Melting - pour plates - inoculation Practical range 100 ± 20 CFU. min. 50 CFU (productivity) / 10^3-10^4 CFU (qualitative selectivity).

Microaerofilic incubation at 30 ±1 ºC for 72 ±3 h

Microbiological control according to ISO 11133:2014/A1:2018.

Microorganism	Growth
Escherichia coli ATCC® 25922, WDCM 00013	Poor to good
Lactobacillus sakei ATCC® 15521	Good (≥70%)
Lactococcus lactis ATCC® 19435	Good (≥70%)
Pediococcus pentosaceus ATCC® 33316	Good (≥70%)

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.

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