Condalab

Reference: 4014 **Technical Data Sheet**

Product: NUTRIENT AGAR

CE IVD

Specification

Solid culture medium for general purpose use with less fastidious organisms according to ISO standards.

Presentation

	Packaging Details	Shelf Life	Storage
20 Tubes Tube 17 x 145 mm with: 15 ± 0,3 ml	17x145 mm glass tubes, ink labelled, metal-Non injectable cap. - 20 tubes per box.	12 months	8-25°C

Composition

Composition (g/l):

Meat extract	1.00
Yeast extract	2.00
Peptone	5.00
Sodium chloride	5.00
Agar	15.00

Description /Technique

Nutrient Agar is a simple medium based on meat infusions, complemented with yeast extract to reinforce its nutrient qualities as well as its growth factors. It is most suitable for general routine work and can support the growth of common organisms, even those considered somewhat fastidious with regard to nutrient requirements.

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 tubes in a water bath or in microwave oven, avoiding overhating, before pouring into Petri dishes when cooled to room temperature.

Once solidified on a flat surface, spread the plates by streaking methodology or by spiral method

Incubate the plates upside down and under aerobic conditions at 36 ± 2 ° C for 22 ± 2h.

(Incubation times longer than those mentioned above or different incubation temperatures may be reqquired depending on the sample, on the specifications,... This medium can be inoculated directly or after enrichment broth)

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.

Quality control

Physical/Chemical control

Color : Yellowish pH: 7.4 ± 0.2 at 25°C

Microbiological control

Melt Medium - Pour plates - inoculation Practical range 100±20 CFU; Min. 50 CFU (Productivity)/ 10^4-10^6 (Selectivity).
Microbiological control according to ISO 11133:2014/ Adm 1:2018.

Aerobiosis. Incubation at 36 ± 2°C, reading at 21±3 h

Microorganism	Growth
Staphylococcus aureus ATCC® 6538, WDCM 00032	Good (≥70 %)
Bacillus subtilis ATCC® 6633, WDCM 00003	Good (≥70 %)
Escherichia coli ATCC® 8739, WDCM 00012	Good (≥70 %)
Salmonella typhimurium ATCC® 14028, WDCM 00031	Good (≥70 %)
Ps. aeruginosa ATCC® 27853, WDCM 00025	Good (≥70 %)

Sterility Control

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

Bibliography

· 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 Foods. 4th ed. APHA. Washington. DC. USA.

· EUROPEAN NORME (EN) 12780:2002 Water Quality - Detection and enumeration of *Pseudomonas aeruginosa* by membrane filtration.

· ISO 8914-1 Standard (1990) Microbiology- General guidance for the detection of *Vibrio parahaemolyticus*.

· ISO 16266 Standard (2006) Water Quality - Detection and enumeration of *Pseudomonas aeruginosa* - Method by membrane filtration.

. ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.