

TECHNICAL DATA SHEET

NUTRIENT AGAR (2 %)

NUTRIENT MEDIA

1 INTENDED USE

Nutrient agar at 2% is used in food microbiology, in water testing and in animal health for the culture of a wide variety of microorganisms. It is used for colony purification, a critical step in the protocols of identification in many standards. It is suitable for the culture of bacteria that have no particular nutritional requirements.

2 PRINCIPLES

Relatively simple, the formula supplies the nutritive elements required for the growth of a wide variety of non-fastidious microorganisms.

3 TYPICAL COMPOSITION

The composition can be adjusted in order to obtain optimal performance.

For 1 liter of media :

| | |
|-----------------------------|--------|
| - Tryptone | 5,0 g |
| - Meat Extract | 3,0 g |
| - Bacteriological agar..... | 12,0 g |

pH of the ready-to-use media at 25 °C : 7,0 ± 0,2.

4 PREPARATION

- Dissolve 20,0 g of dehydrated media (BK185) in 1 liter of distilled or demineralized water.
- Slowly bring to boiling, stirring slowly until complete dissolution.
- Dispense in tubes or vials.
- Sterilize in an autoclave at 121°C for 15 minutes.
- Cool to and maintain in a molten state at 44-47 °C
- Pour into sterile Petri plates and let solidify on a cold, flat surface.
- Dry the plates in an incubator with the covers partially removed.

✓ **Reconstitution :**
20,0 g/L

✓ **Sterilization :**
15 min at 121 °C

Use of the ready-to-melt media :

- Melt the media for the least amount of time needed to achieve complete liquefaction (if it was prepared in advance) or use the ready-to-melt media in tubes (BM118), also melting for the least amount of time needed.
- Cool and maintain in a molten state at 44-47 °C.

5 INSTRUCTIONS FOR USE

- Inoculate by streaking in order to obtain isolated colonies.
- Incubate the plates and follow the appropriate analytical protocol.

6 QUALITY CONTROL

Dehydrated media : cream powder, free-flowing and homogeneous.

Prepared media : amber agar.

Typical culture response after 24 hours of incubation at 37 °C (NF EN ISO 11133 ; FD T90-461) :

| Microorganisms | | Growth | Characteristics |
|-------------------------------|------------|---------------|-------------------------|
| <i>Escherichia coli</i> | WDCM 00012 | Good, score 2 | Cream colonies |
| <i>Salmonella Typhimurium</i> | WDCM 00031 | Good, score 2 | White to cream colonies |
| <i>Shigella sonnei</i> | WDCM 00127 | Good, score 2 | Cream colonies |
| <i>Pseudomonas aeruginosa</i> | WDCM 00026 | Good, score 2 | Greenish colonies |

7 STORAGE / SHELF LIFE

Dehydrated media : 2-30 °C.

Ready-to-melt media in tubes : 2-25 °C.

The expiration date is indicated on the label.

Prepared media in tubes or vials (*) : 180 days at 2-25 °C.

Prepared media in plates (*) : 30 days at 2-8 °C.

(*) Benchmark value determined under standard preparation conditions, following manufacturer's instructions.

8 PACKAGING

Dehydrated media :

500 g bottle BK185HA

Ready-to-melt media :

50 x 18 mL tubes BM11808

9 BIBLIOGRAPHY

NF EN ISO 21567. Mars 2005. Microbiologie des aliments. Méthode horizontale pour la recherche de *Shigella* spp.

NF EN ISO 19250. Juin 2013. Qualité de l'eau. Recherche de *Salmonella* spp.

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FD T90-461. Août 2016. Qualité de l'eau - Microbiologie - Contrôle qualité des milieux de culture.

NF EN ISO 6579-1. Avril 2017. Microbiologie de la chaîne alimentaire - Méthode horizontale pour la recherche, le dénombrement et le sérotypage des *Salmonella* - Partie 1 : recherche des *Salmonella* spp..

NF EN ISO 16654/A1. Juin 2017. Microbiologie des aliments - Méthode horizontale pour la recherche des *Escherichia coli* O157 - Amendement 1 : annexe B : résultats des études interlaboratoires.

NF EN ISO 10273. Juin 2017. Microbiologie de la chaîne alimentaire - Méthode horizontale pour la recherche de *Yersinia enterocolitica* pathogènes.

10 ADDITIONAL INFORMATION

The information provided on the labels take precedence over the formulations or instructions described in this document and are susceptible to modification at any time, without warning.

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