Mueller-Hinton/Agar

356-3824
356-3901 / 355-6137
356-4884 / 356-4888

DEFINITION
Medium used for studying the sensitivity of bacteria to antibiotics and also as a base medium for the preparation of blood agar.

PRINCIPLE
The nutrient substances provided by the infusion of meat and casein hydrolysate favor growth of most bacteria.

PRESENTATION
- **Pre-poured**
  20 dishes x 90 mm — **code 356-3824**
  10 dishes x 120 mm — **code 356-3901**
- **Ready-to-use**
  200 ml x 6 bottles — **code 355-6137**
- **Dehydrated**
  500 g — **code 356-4884**
  5 kg — **code 356-4888**

STORAGE
- Pre-poured: + 2℃ to 20℃.
- Ready-to-use: + 2℃ to 8℃.
- Dehydrated: + 15℃ to 25℃, in carefully-sealed bottles in a cool, dry place.
- Expiration date and batch number are shown on the package.

THEORETICAL FORMULA
Dehydrated beef infusion	4 g
Casein hydrolysate	17.5 g
Corn starch	1.5 g
Agar	12 g
Distilled water	1,000 ml

Final pH (25℃) = 7.3 ± 0.1

OTHER PRODUCTS REQUIRED (NOT SUPPLIED)
- Distilled water

EQUIPMENT REQUIRED (NOT SUPPLIED)
(non-exhaustive)
- Hotplate
- Mixer-homogenizer
- 100 ml Pyrex bottles with autoclave-proof stoppers
- Sterile Petri dishes (Ø= 90 mm and 120 mm)
- Thermostatically-controlled incubator or incubating room, precise to ± 1℃
- Autoclave
- All usual laboratory equipment.

PREPARATION OF DEHYDRATED MEDIUM
Always shake well before use.
Dissolve 35 g of powder in 1 liter of distilled water. Bring to the boil until completely dissolved.
Dispense in tubes or bottles and sterilize in autoclave at 121℃ for 15 minutes.

Reconstitution ratio: 35 g/l
500 g of powder makes 14.2 liters of medium.

PROTOCOL
At the moment of use, melt the medium in a boiling water-bath and pour into Petri dishes.
The layer of agar should be 4 mm thick. Dry the dishes for 30 minutes at 37℃.
For the technique and reading of antibiotic susceptibility, see the “Antibiogram” sheet.

PRECAUTIONS
Comply with Good Laboratory Practices.

PERFORMANCES / QUALITY CONTROL OF THE TEST
The growth performances of the media are verified with the following strains:

STRAINS	Growth after 24h at 37℃
Escherichia coli ATCC 25922	Satisfactory growth
Staphylococcus aureus ATCC 25923	Satisfactory growth
Pseudomonas aeruginosa ATCC 27853	Satisfactory growth

STRAINS	Antimicrobial susceptibility testing
Escherichia coli ATCC 25922	Complying with inhibition diameters current specifications (NCCLS and/or CA-SFM)
Staphylococcus aureus ATCC 25923	
Pseudomonas aeruginosa ATCC 27853	
Enterococcus faecalis ATCC 29212	

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Mueller-Hinton/Agar

QUALITY CONTROL OF MANUFACTURER

Every product manufactured and marketed by Bio-Rad is subject to a quality-assurance procedure at all stages, from the reception of raw materials to the marketing of the end-product. Each batch of finished product undergoes quality control and is marketed only if it satisfies the acceptability criteria.

Documentation relative to the production and control of each batch is kept on file.

KEY WORDS

Mueller-Hinton Agar / Blood agar / Sensitivity / Antibiotics / Antibiotic assay / Medium.

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