

Agar medium Q (Columbia agar)

356-4674
356-4678

DEFINITION

A rich medium highly suitable for the culture of fastidious bacteria, especially with the addition of blood. It can then be used for detecting the hemolytic response of certain bacteria.

STANDARDS

European Pharmacopeia 6.0 - Biological methods - **2.6.13.**: Microbiological test of non-sterile products (Detection of specified micro-organisms)

PRINCIPLE

The nutrient substances provided by the special blend of peptones favor the growth of most bacteria.

The addition of nalidixic acid (NAC) renders the medium selective.

PRESENTATION

Base

Dehydrated

500 g

code 356-4674

5 kg

code 356-4678

STORAGE

- Dehydrated: +15-25°C, in carefully-sealed bottles in a cool, dry place
- Expiration date and batch number are shown on the package.

TYPICAL FORMULA

| | |
|-----------------------------|----------|
| Special blend of peptones | 23 g |
| Starch | 1 g |
| Sodium chloride | 5 g |
| Agar | 10 g |
| Distilled water | 1,000 ml |
| Final pH (25°C) = 7.3 ± 0.2 | |

NB: the formula has been adapted to attain the required performance criteria.

OTHER PRODUCTS REQUIRED (NOT SUPPLIED)

- Diluent(s)
- Distilled water

EQUIPMENT REQUIRED (NOT SUPPLIED)

(non-exhaustive)

- Scales
- Sterile weighing bags
- Grinder
- Hotplate
- Test tubes (16 x 160 mm) with autoclave-proof stopper
- Sterile Petri dishes (Ø = 90 mm)
- Sterile pipettes (1 ml, etc)
- Water-bath precise to ±1°C
- Thermostatically-controlled incubator or incubation room, precise to ±1°C
- Autoclave
- Durham bell jar (for anaerobic culture)
- All usual laboratory equipment

PREPARATION OF DEHYDRATED MEDIUM

Always shake well before use.

Dissolve 39 g of powder in 1 liter of distilled water. Bring to the boil until completely dissolved.

Dispense 15 ml per tube or 100 ml per bottle and sterilize in autoclave at 121°C ± 1°C for 15 minutes.

**Reconstitution ratio: 39 g/l
500 g of powder makes 12.8 liters of
Medium.**

PROTOCOL

Columbia agar

Manifestation of anaerobic character in the detection of *Clostridium thermophiles*: melt the medium in a boiling water-bath and pour into Petri dishes.

Streak-inoculate the surface of 4 dishes using a culture in liquid medium.

Place 2 dishes in aerobic culture at 55°C ± 1°C for 1 to 4 days.

Place the other 2 dishes in anaerobic culture at 55°C ± 1°C for 1 to 4 days.

QUALITY CONTROL

In view of the current harmonization of pharmacopeias, we recommend that you refer to the certificates of analysis for procedures relative to the quality control (performance and selectivity) of media produced by Bio-Rad.

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.

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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

Columbia/Fastidious bacteria/Blood/NAC/
Hemolytic response/Medium

BIBLIOGRAPHY

• **ELLNER D., STOESEL C.J., DRAKEFORD E. and VASI F. (1966):** A new medium for medical bacteriology. *American Journal of Clinical pathology* **45**: 502-504

• **THAYER J.D., MARTIN J.E. (1966):** Improved medium selective for *Neisseria gonorrhoeae* and *Neisseria meningitidis*. *Public Health Report* **81**: 559-562