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℃, 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℃) = 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℃
- Thermostatically-controlled incubator or incubation room, precise to ±1℃
- Autoclave
- Durham bell jar (for anaerobiotic 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℃ ± 1℃ 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 aerobiotic culture at 55℃ ± 1℃ for 1 to 4 days.
Place the other 2 dishes in anaerobiotic culture at 55℃ ± 1℃ 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

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