

Technical Data Sheet

Columbia Blood Agar Pharm

Ordering number: 1.46559.0020 / 1.46559.0100

Columbia Blood Agar Pharm. is suitable for the isolation and cultivation of fastidious bacteria as well as for detection of hemolysis.

Ten settle plates each with a diameter of 90 mm are single-bagged in transparent, hydrogen peroxide impermeable sleeves (non-irradiated). The sleeves consist of polypropylene with a barrier of PE- EVOH-PE.

Mode of Action

The peptone and sheep-blood quality determine the quality of the Columbia Blood Agar Pharm. in respect of growth and development of the different hemolysis forms (see Quality Control). The starch component primarily influences the diffusion of the hemolysin and therefore the sharpness of the hemolysis zone. In addition to the species given under "Quality Control", *Brucella*, *Campylobacter* spp., *Gardnerella vaginalis*, *Helicobacter pylori* and many other fastidious bacteria show particularly good growth. Columbia Blood Agar is also appropriate for the cultivation of anaerobic bacteria or yeasts.

Typical Composition (g/liter):

Peptone	23 g/l
Starch	1 g/l
NaCl	5 g/l
Sheep Blood	50 ml/l
Agar	14 g/l

The appearance of the medium is blood-red, without flow marks. The pH value is in the range of 7.1-7.5. The medium can be adjusted and/or supplemented according to the performance criteria required.

Application and Interpretation

Each plate is provided with a label including a data matrix code for paperless plate identification. The code consists of a two-dimensional 20-digit serial number, which harbors the following information:

digits 1-3: here code 747 (corresponds to article 146559); digits 4-9: lot number; digits 10-14: batch specific individual number; digits 15-20: expiration date (YY/MM/DD).

Please check each agar plate before using it on sterility and pay attention to aseptic handling in order to avoid false positive results.

Columbia Blood Agar Pharm. can be used for sub-cultivation of isolates. The medium can be incubated under aerobic, microaerophilic or anaerobic conditions.

The differentiation of isolates is carried out by transferring bacterial material to differentiation media. Additional biochemical, serological, and immunological tests as well as nucleic acid amplification techniques can be found in specific literature.

Media which contain substances of animal or human origin (e.g. sheep or human blood, beef extract) must be considered as potentially infectious. The end user must avoid any contact with such media. In the event there is direct contact with the medium, disinfection of the affected skin is recommended.

Storage and Shelf life

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +2 °C to +8 °C.

Condensation can be prevented by avoiding quick temperature shifts and mechanical stress.

The testing procedures as described on the CoA can be started up to the expiry date printed on the label.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
<i>Staphylococcus aureus</i>	6538	10-100	20-24 h at 35-37 °C	70-200 %; medium-sized yellow colonies with slight double-hemolysis
<i>Escherichia coli</i>	8739	10-100	20-24 h at 35-37 °C	70-200 %; good growth; grey- white, medium-sized colonies
<i>Streptococcus pyogenes</i>	12344	10-100	20-24 h at 35-37 °C	70-200 %; good growth; grey- whitish, small, shiny colonies; beta-hemolysis
<i>Pseudomonas aeruginosa</i>	9027	10-100	20-24 h at 35-37 °C	70-200 %; good growth; grey- white, large colonies with irregular margin
<i>Bacillus subtilis</i>	6633	10-100	20-24 h at 35-37 °C	70-200 %; good growth; whitish, dry, flat colonies
<i>Clostridium sporogenes</i>	19404	10-100	20-24 h at 35-37 °C (anaerobic)	70-200 %; good growth; flat, irregularly demarcated colonies
<i>Streptococcus pneumoniae</i>	33400	10-100	20-24 h at 35-37 °C (micro-aerophilic)	70-200 %; good growth; white-yellowish, small, shiny colonies; alpha-hemolysis



Please refer to the actual batch related Certificate of Analysis.

Literature

Ellner, P. D., Stoessel, C. J., Drakeford, E., Vasi, F. (1966): A new culture medium for medical bacteriology. Am. J. Clin. Pathol. 45: 502-504.

Von Graevenitz, A. (1991): Use of antimicrobial agents as tools in epidemiology, identification, and selection of microorganisms. In: Lorian, V., Antibiotics in Laboratory Medicine. 3rd ed. Williams & Wilkins, Baltimore, Ch. 20

Ordering Information

Product	Cat. No.	Pack size
Columbia Blood Agar Pharm.	1.46559.0020	20 x 90 mm plates
Columbia Blood Agar Pharm.	1.46559.0100	100 x 90 mm plates

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The life science business of Merck operates as
MilliporeSigma in the U.S. and Canada.

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