

TECHNICAL DATA SHEET

Article No. 9772

Columbia Agar with sheep blood, prepared plates

SYNONYMS

Columbia Blood Agar

SPECIFICATION

Prepared plates, 90 mm. Nutrient rich medium suitable for the isolation of pathogenic microorganisms from clinical specimens, according to ISO standards.

Color: red
pH: 7.2 ±0.2 at 25 °C

COMPOSITION IN G/L

Casein pancreatic digest	10.00
Meat peptic digest	5.00
Heart pancreatic digest	3.00
Yeast extract	5.00
Sodium chloride	5.00
Starch	1.00
Agar	15.00
Defibrinated sheep blood	50 ml

PACKAGING DETAILS

9772-20PLATES

20 prepared plates 90 mm

Content: 19 ±2 ml

Packaging unit: 1 box with 2 packs of 10 plates/pack. Single cellophane.



GUIDELINES

Description:

This highly nutritive medium allows recovery of a wide variety of fastidious microorganisms. The lack of selective supplementation in this medium does not enable the suppression of the accompanying flora. Consider both hemolysis reactions and colony appearance as well as the results obtained from other culture media, as keys for microbiological identification.

Technique:

Collect, dilute and prepare samples as required. Spread sample onto the plate by streaking or spiral method. Incubate plates in inverted position in a 5 % carbon dioxide enriched aerobic atmosphere at 37 ±1 °C for 24-48 hours. Preferably, spread with the same sample other non-enriched or non-selective media, previously defined by the laboratory, to have better and comparative results.

Different animal blood source, greater incubation times, humidity or larger percentage of carbon dioxide in atmosphere etc. may be required depending on the sample, on the specifications of the laboratory or the expected isolations to be found. Calculate total microbial counts considering, if applied to the samples, the inverted dilution factors.

MICROBIOLOGICAL CONTROL

Inoculate: Practical range 100 ±20 CFU. Min. 50 CFU (productivity).

Analytical methodology acc. to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 37 ±1 °C, reading after 24-48 ±2 h

Except. *Campylobacter sp.*, microaerophil atmosph.

Microorganism	Growth
<i>Enterococcus faecalis</i> ATCC® 19433, WDCM 00009	Good (≥70 %) – gamma-hemolysis, w/o halo
<i>Streptococcus pneumoniae</i> ATCC® 49619	Good (≥70 %) – alpha-hemolysis, greenish halo
<i>Streptococcus pyogenes</i> ATCC® 19615	Good (≥70 %) – beta-hemolysis, clear halo
<i>Streptococcus agalactiae</i> ATCC® 12386	Good (≥70 %) – beta-hemolysis, clear halo
<i>Camp. jejuni</i> ATCC® 29428, WDCM 00156 (41,5°C±1°C)	Good (≥70 %)
<i>Escherichia coli</i> ATCC® 8739, WDCM 00012	Good (≥70 %) – gamma-hemolysis, w/o halo
<i>Staphylococcus aureus</i> ATCC® 6538, WDCM 00032	Good (≥70 %) – beta-hemolysis, clear halo
<i>Acinetobacter baumannii</i> ATCC® 19606	Good (≥70 %)

Sterility control:

Incubation 48 hours at 30-35 °C and 48 hours at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

BIBLIOGRAPHY

- ATLAS, RM & LC PARKS (1993) Handbook of Microbiological Media. CRC Press. London.
- CASMAN, E. (1947) A non-infusion blood agar base for neiseriae, pneumococci and streptococci. Am. J. Clin. Path. 17:281-289.
- ELLNER, PD, CJ STOESEL, E. DRAKEFORD, & F. VASI (1966) A new culture medium for medical bacteriology. Amer. J. Clin. Path. 45:502-504.
- ISENBERG H.D. (1992) Clinical Microbiology Procedures Handbook. ASM Washington. DC. USA.
- ISO 10272-1 Standard (2017) Microbiology of the food chain - Horizontal Method for detection and enumeration of *Campylobacter* spp. - Part 1: Detection method.
- ISO 10272-2 Standard (2017) Microbiology of the food chain - Horizontal Method for detection and enumeration of *Campylobacter* spp. - Part 2: Colony count-technique.
- ISO 11133:2014/ Adm 1:2018. Microbiology of food, animal feed and water. Preparation, production, storage and performance testing of culture media.

STORAGE

2-14 °C

SHELF LIFE

2.5 months unopened from date of manufacture

created: 23.03.2022

