

Columbia Blood Agar Base

Catalog : HB0124-14

Columbia Blood Agar Base is rich in nutrients, a basal medium for various bacteria.

Approximate Formula:

Ingredients	gm/liter
Peptone Special	23.0
Soluble Starch	1.0
Sodium Chloride	5.0
Agar	10.0
Final pH7.3±0.2 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 39.0g of the medium in one liter of distilled water or deionized water. Mix well and heat with frequent agitation to completely dissolve the powder. Dispense into flasks. Sterilize in an autoclave at 121°C (15 lbs.) for 15 minutes. When cooling to 50°C, add 5% sterile defibrillated sheep blood to each flask. Mix well. Pour into petri dishes.

Principle and Interpretation:

Peptone special provide sources of carbon, nitrogen, vitamins and minerals. Starch serves as an energy source and neutralizes toxic metabolites. Sheep blood permits the detection of hemolysis and provides heme (X factor), which is required for the growth of many bacteria. Sodium chloride maintains osmotic balance in the medium. Agar is the solidifying agent.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of blood-red gel.

Precautions:

This medium is for laboratory use only. Dried medium which is caking or color variation cannot be used.

Storage conditions and Shelf life:

Columbia Blood Agar Base must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 24 hours.

Microorganism	Strains Number	Growth	Remarks
<i>Bacillus cereus</i>	ATCC 11778	luxuriant	β-Hemolytic ring around the Colonies
<i>Staphylococcus Aureus</i>	ATCC 6538	luxuriant	β-Hemolytic ring around the Colonies
Beta-hemolytic <i>Streptococcus</i>	CMCC 32210	luxuriant	β-Hemolytic ring around the Colonies
<i>Streptococcus pneumoniae</i>	ATCC 6305	luxuriant	α-Hemolytic ring around the Colonies

References:

1. United States Pharmacopeial Convention, Inc. 2008. The United States pharmacopeia 31/The national formulary 26, Supp. 1, 8-1-08, online. United States Pharmacopeial Convention, Inc., Rockville, Md.
2. European Directorate for the Quality of Medicines and Healthcare. 2008. The European pharmacopoeia, 6th ed., Supp. 1, 4-1-2008, online. European Directorate for the Quality of Medicines and Healthcare, Council of Europe, 226 Avenue de Colmar BP907-, F-67029 Strasbourg Cedex 1, France.
3. Japanese Ministry of Health, Labour and Welfare. 2006. The Japanese pharmacopoeia, 15th ed., online. Japanese Ministry of Health, Labour and Welfare.