

# Columbia Agar



Medium used for the cultivation and enumeration of fastidious and non-fastidious microorganisms from a variety of clinical and non-clinical materials.

\*Equally use with KP (MB-C0700P), USP and EP.

## • CONTENTS (Liter)

Pancreatic Digest of Casein	10.0 g
Peptic Digest of Meat	5.0 g
Pancreatic Digest of Heart	3.0 g
Yeast Extract	5.0 g
Corn Starch	1.0 g
Sodium Chloride	5.0 g
Agar	15.0 g
Final pH = 7.3 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 44.0 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. If necessary, aseptically add 2 mL of Gentamicin supplement (MB-G1833). Mix well. Pour into petri dishes.

### **Gentamicin supplement**

1 vial contents

Gentamicin 0.05 g

## • INTERPRETATION

Columbia Agar is a medium used for the cultivation and enumeration of fastidious and non-fastidious microorganisms from a variety of clinical and non-clinical materials. Pancreatic digest of casein, peptic digest of meat and pancreatic digest of heart provide carbon, nitrogen, vitamins and minerals. Yeast extract and corn starch are included in the medium and serve as energy sources, a supplier of the B-complex vitamins. Sodium chloride maintains the osmotic balance. Agar is the solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 30 - 35°C for 48 hours under appropriate condition. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: light beige

### Prepared medium

Appearance: slightly opalescent, may have slight precipitates

Color: light amber

Incubation conditions: 30 - 35°C / 48 hours under appropriate condition

Microorganism	ATCC	Inoculum CFU	Growth
<i>Escherichia coli</i>	8739	50-100	good
<i>Staphylococcus aureus</i>	6538	50-100	good
<i>Streptococcus pyogenes</i>	19615	50-100	good
<i>Streptococcus pneumoniae</i>	6305	50-100	good
<i>Clostridium sporogenes</i>	11437	50-100	good
<i>Clostridium sporogenes</i>	19404	50-100	good

## • STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

## • REFERENCES

1. Ellner, P.D., C.J. Stoessel., E. Drakeford, and F. Vasi (1966). A new culture medium for medical bacteriology. Am. J.Clin. Path. 45, 502-504.
2. Isenberg, H.D. (ed.) (1992). Clinical microbiology procedures handbook, vol. 1 American Society for Microbiology, Washington, DC.
3. Refer to the KP, USP and EP.

## • PACKAGE

Cat. No : MB-C0700 Columbia Agar	500 G
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