

# PCA (Plate Count Agar)



Medium used for total microbial count in milk and dairy products.

\* Equally use with MFDS (MB-P1040K), QIA (MB-P1040Q) and NIER (MB-P1040N).

## • CONTENTS (Liter)

Tryptone	5.0 g
Yeast Extract	2.5 g
Dextrose	1.0 g
Agar	15.0 g
Final pH = 7.0 ± 0.2 at 25°C.	

## • PROCEDURE

Suspend 23.5 G of powder to 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. Mix well. Dispense in petri dishes.

## • INTERPRETATION

PCA (Plate Count Agar) is a medium for total count of aerobic bacteria and heterotrophic facultative anaerobes in waters, liquids, foodstuff, milk, dairy products and in all human utilization products prepared according to the formulation. Tryptone and yeast extract provide nitrogen, carbon, vitamins and minerals. Dextrose is an energy source. Agar is solidifying agent.

## • TECHNIC

Inoculate the plates with spreading the specimen on surface of the medium using a sterile loop. Incubate at 35 - 37°C for 24 - 48 hours or 72 ± 3 hours (QIA at 35 ± 1 °C for 48 ± 2 hours or at 30 ± 1 °C for 72 hours). 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, no precipitate.

Color: light amber.

Incubation conditions: 35 - 37 °C / 24 - 48 hours or 72 ± 3 hours

(QIA at 35 ± 1 °C for 48 ± 2 hours or at 30 ± 1 °C for 72 hours)

Microorganism	ATCC	Inoculate CFU	Growth
<i>Escherichia coli</i>	25922	50-100	good
<i>Staphylococcus aureus</i>	25923	50-100	good
<i>Bacillus subtilis</i>	9466	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 or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

## • REFERENCES

1. APHA (1985). Standard Methods for the Examination of Water and Wastewater, 16th edition.
2. ISO 4833: 2003. Microbiology- General Guidance for the enumeration of micro-organisms. Colony count technique at 30°C.
3. Standard Method 9215, 21th edition, Heterotrophic plate count.
4. HPA National Standard Method, W4, Colony count by the pour plate method.
5. Refer to the MFDS, QIA and NIER.

## • PACKAGE

Cat. No : MB-P1040 PCA (Plate Count Agar)	500 G
--	-------