

**PLATE COUNT AGAR***For microbiological control only*

Enumeration of microorganisms at 30°C in food products

**SUMMARY AND EXPLANATION**

The PCA (Plate count agar) medium is used for the enumeration of microorganisms (bacteria, yeasts and molds), which grow in aerobic conditions at 30°C in food products for human or animal consumption. It complies with standard NF EN ISO 4833 (1).

**PRINCIPLE**

This nutritive medium particularly favors the growth and enumeration of most non-fastidious microorganisms that develop at 30°C in aerobic conditions.

**CONTENT OF THE KIT**

<b>Dehydrated medium</b>	
REF AEB150702	500 g bottle

**COMPOSITION****Theoretical formula after reconstitution of the medium**

This medium can be adjusted and/or supplemented according to the performance criteria required:

Pastone.....	5,00 g
Yeast extract.....	2,50 g
Glucose.....	1,00 g
Agar.....	15,00 g
Purified water.....	1000 ml
pH: 7,0	

**REAGENTS AND MATERIAL REQUIRED BUT NOT PROVIDED****Reagents:**

- Diluent (ex: Peptone salt Ref. AEB611498/ Ref. AEB111499).

**Material:**

Bacteriology incubator  
Autoclave  
Water baths  
Sterile or aseptic Petri plates

**WARNINGS AND PRECAUTIONS**

- **For microbiological control only.**
- **For professional use only.**
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not totally guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious and handled observing the usual safety precautions (do not ingest or inhale).
- All specimens, microbial cultures and inoculated products should be considered infectious and handled appropriately. Aseptic technique and usual precautions for handling the bacterial group studied should be observed throughout this procedure. Refer to "CLSI® M29-A, Protection of Laboratory Workers From Occupationally Acquired Infections; Approved Guideline— current revision." For further information on handling precautions, refer to "Biosafety in Microbiological and Biomedical Laboratories – CDC/NIH Latest edition, or the current regulations in the country of use.
- Culture media should not be used as manufacturing material or components.
- Do not use reagents past the expiry date.

- Do not use media which are not homogeneous (presence of lumps).
- Avoid opening bottles in a humid atmosphere (steam, condensation, etc.).
- The medium should be used according to the procedure indicated in this package insert. Any change or modification in the procedure may affect the results.

**STORAGE CONDITIONS**

- **Store the bottle at 1- 30 °C until the expiry date.**
- Store in a dry place

**SPECIMENS**

Follow the recommendations in the current standards to perform specimen collection and preparation

**INSTRUCTIONS FOR USE****Preparation**

1. Pour 23.5 grams of powder into one litre of distilled water.
2. Bring to the boil, with frequent stirring to ensure complete dissolution.
3. Dispense into tubes or bottles.
4. Autoclave for 15 minutes at 121°C
5. Leave the bottles at room temperature for at least 15 seconds before transferring them to a thermostatically controlled water bath set at approximately 47°C +/- 2°C. Maintain the bottles at this temperature until use.

**Inoculation and incubation:**

1. Transfer 1 ml of the stock solution or the dilutions into the base of two sterile Petri plates.
2. After dispensing the inoculum, pour approximately 15 ml of agar into the Petri plate.
3. Carefully mix the inoculum with the medium.
4. Leave to solidify by placing the Petri plates on a cool, flat surface.
5. Add 4 to 5 ml of white agar and leave to solidify.
6. Incubate at 30°C for 72 hours (cover bottom side).

**READING AND INTERPRETATION**

- After incubation, observe the bacterial growth.
- The colonies are counted and only those plates containing between 15 and 300 colonies are retained

**NOTE**

For dairy microbiology, it is interesting to add 1g/l of powder skimmed milk into the basic agar. In this case, caseolytic bacteria grow with a clearer halo around their colonies, indicating milk casein proteolysis.

**QUALITY CONTROL**

The standard Plate Count Agar has been designed and developed to meet the strictest quality requirements. The results obtained using strains tested during controls for bacteriological activity are shown on the quality control certificate for each batch, available from our website ([www.biomerieux.com](http://www.biomerieux.com)).

**WASTE DISPOSAL**

Unused reagents may be considered as non-hazardous waste and disposed of accordingly.








Dispose of all used reagents as well as any other contaminated disposable materials following procedures for infectious or potentially infectious products.

It is the responsibility of each laboratory to handle waste and effluents produced according to their nature and degree of hazardousness and to treat and dispose of them (or have them treated and disposed of) in accordance with any applicable regulations.

**LITERATURE REFERENCES**

1. Microbiology of food and animal feeding stuffs. Horizontal method for the enumeration of microorganisms. Colony-count technique at 30°C. - NF EN ISO 4833

**INDEX OF SYMBOLS**

Symbol	Meaning
	Catalogue number
	Manufacturer
	Temperature limit
	Use by date
	Batch code
	Consult Instructions for Use
	Keep dry

**WARRANTY**

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