

Plate Count Agar (Casein-peptone Dextrose Yeast Agar)

Standard Methods Agar

This medium does not contain any inhibitors or indicators; it is mainly used to determine the total microbial content in milk, dairy products, water and other materials.

The composition of this medium complies with the Standard Methods for the Examination of Water and Wastewater (1998) and the Standard Methods for the Examination of Dairy Products (1985).

Typical Composition (g/litre)

Peptone from casein 5.0; yeast extract 2.5; D(+)glucose 1.0; agar-agar 14.0.

Preparation

Suspend 22.5 g/litre, autoclave (15 min at 121 °C). If desired, add 1.0 g skim milk powder/litre prior to sterilization.

pH: 7.0 ± 0.2 at 25 °C.

The plates are clear and yellowish.

Experimental Procedure and Evaluation

Depend on the purpose for which the medium is used.

Incubation: 48 h at 30 °C aerobically.

Literature

American Public Health Association: Standard Methods for the Examination of Dairy Products. 15th ed., 1985.

American Public Health Association, American Water Works Association and Water Pollution Control Federation: Standard Methods for the Examination of Water and Wastewater. 20th ed., Washington, 1998.

MARTLEY, F.G., JAYASHANKAR, S.R., a. LAWRENCE, R.C.: An improved agar medium for the detection of proteolytic organisms in total bacterial counts. - *J. Appl. Bact.*, **33**; 363-370 (1970).

Ordering Information

Product	Merck Cat. No.	Pack size
Plate Count Agar (Casein-peptone Dextrose Yeast Agar)	1.05463.0500	500 g
Plate Count Agar (Casein-peptone Dextrose Yeast Agar)	1.05463.5000	5 kg
Skim milk powder	1.15363.0500	500 g



Bacillus cereus
ATCC 11778

Quality control (spiral plating method)

Test strains	Inoculum (cfu/ml)	Recovery rate
<i>Staphylococcus aureus</i> ATCC 6538	10 ³ -10 ⁵	≥ 70 %
<i>Streptococcus agalactiae</i> ATCC 13813	10 ³ -10 ⁵	≥ 70 %
<i>Lactococcus lactis</i> spp. <i>lactis</i> ATCC 19435	10 ³ -10 ⁵	≥ 70 %
<i>Listeria monocytogenes</i> ATCC 19118	10 ³ -10 ⁵	≥ 70 %
<i>Lactobacillus acidophilus</i> ATCC 4356	10 ³ -10 ⁵	≥ 70 %
<i>Bacillus cereus</i> ATCC 11778	10 ³ -10 ⁵	≥ 70 %
<i>Escherichia coli</i> ATCC 11775	10 ³ -10 ⁵	≥ 70 %