



PLATE COUNT AGAR

INTENDED USE

Plate Count Agar and Standard Methods Agar (Plate Count Agar; Tryptone Glucose Yeast Agar) are used for obtaining microbial plate counts from milk and dairy products, foods, water and other materials of sanitary importance.

SUMMARY AND EXPLANATION

Plate Count Agar and Standard Methods Agar are made according to the American Public Health Association (APHA) formulation.¹ They are recommended for obtaining plate counts for milk and other dairy products and may also be used to determine the sanitary quality of foods, water and other materials.¹

PRINCIPLE

Enzymatic digest of casein provides the amino acids and other complex nitrogenous substances necessary to support bacterial growth. Yeast extract primarily supplies the B-complex vitamins, and dextrose is an energy source. TTC is reduced to the insoluble formazan inside the bacterial cell producing red-colored colonies.

REAGENTS (FORMULA)

Pancreatic Digest of Casein	5.0	g
Yeast Extract	2.5	g
Dextrose	1.0	g
Agar	15.0	g
Deionized Water	1000.0	ml

PROCEDURE

Consult appropriate references for information regarding the processing and inoculation of food, water samples and other materials.¹⁻⁵

EXPECTED RESULTS

Follow recommended procedures for the counting of colonies and the reporting of results.¹⁻⁵

QUALITY CONTROL

All lot numbers have been tested and have been found to be acceptable. Customers can test products using the following quality control organisms. Testing of control organisms should be performed in accordance with established laboratory quality control procedures. If aberrant quality control results are noted, sample results should not be reported.

Organisms	Incubation	Results
<i>Lactobacillus johnsonii</i> ATCC 11506	35 ± 2°C for 18-48 hours	Growth
<i>Staphylococcus aureus</i> ATCC 25923	35 ± 2°C for 18-48 hours	Growth

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BIBLIOGRAPHY

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3. Eaton, Rice and Baird (ed.). 2005. Standard methods for the examination of water and wastewater, 21st ed., online. American Public Health Association, Washington, D.C.
4. Horwitz (ed.). 2007. Official methods of analysis of AOAC International, 18th ed., online. AOAC International, Gaithersburg, Md.
5. U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International, Gaithersburg, Md.

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