



Dextrose Casein-peptone Agar

Medium proposed by WILLIAMS (1936) for the identification and enumeration of *Bacillus* species, especially of "flat sour" bacteria (TANNER 1944), in foodstuffs.

General Information

This medium complies with the recommendations of the NCA (National Canners Association 1954, 1956), and the APHA (1992) for examining foods.

Mode of Action

Bacterial colonies, which metabolize dextrose to form acid, cause the indicator bromocresol purple in their immediate surroundings to change its colour to yellow.

Typical Composition (g/litre)

Peptone from casein 10.0; D(+)-glucose 5.0; bromocresol purple 0.04; agar-agar 12.0..

Preparation

Suspend 27 g/litre, autoclave (15 min at 121°C).

pH: 6.8 ± 0.2 at 25°C.

The medium is clear and purple.

Experimental Procedure

The culture medium is usually inoculated by the pour-plate method.

Detection of spores: Add the sample material to the culture medium, heat (30 minutes in free-flowing steam) and pour plates.

Detection of mesophilic bacteria: Incubate up to 72 hours at 35 °C.

Detection of thermophilic bacteria: Incubate up to 48 hours at 55-60°C.

Typical flat-sour colonies have a smooth edge, a diameter of 2-3 mm with an opaque central spot and are usually surrounded by a yellow zone. Neighbouring colonies which cause alkalinization of the culture medium can mask the yellow colouration.

Literature

American Public Health Association Inc.: Compendium of Methods for the Microbiological Examination of Foods. - **3rd ed.**, 1992.

National Canners Association: A Laboratory Manual of the Canning Industry. - **1st ed.**, Washington 1954.

National Canners Association: Ibid. - **2nd ed.**, Washington 1956, 2-9.

TANNER, F.W.: "The Microbiology of Foods." Champaign Ill., Gerard Press, 2nd ed. 1944, 693-722; 762-763; 1127-1128.

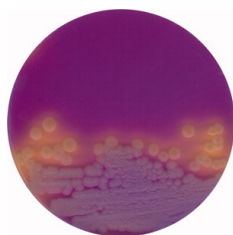
WILLIAMS, O.B.: Tryptone medium for the detection of flat sour spores. - **Food Research, I (3)**, 217-221 (1936).

Ordering Information

Product	Ordering No.	Pack size
Dextrose Casein-peptone Agar	1.10860 .0500	500 g

Quality control

Test strains	Growth	Colour change to yellow
Staphylococcus aureus ATCC 25923	fair / very good	
Enterococcus faecalis ATCC 11700	good / very good	
Bacillus cereus ATCC 11778	good / very good	
Bacillus subtilis ATCC 6633	good / very good	(after 24 h usually weak)
Escherichia coli ATCC 25922	good / very good	
Alcaligenes faecalis ATCC 19209	fair / very good	-
Bacillus stearothermophilus ATCC 7953	good / very good (60°C)	
Bacillus coagulans DSMZ 1	good / very good	



Bacillus cereus ATCC 11778



Escherichia coli ATCC 25922