

CHINA-BLUE LACTOSE AGAR

Non-selective medium for enumeration and differentiation of bacteria in dairy products.

TYPICAL FORMULA	(g/l)
Meat Extract	3.0
Tryptone	5.0
Sodium Chloride	5.0
Lactose	10.0
China Blue	0.375
Agar	15.0
Final pH 7.2 ± 0.2 at 25°C	

DESCRIPTION

CHINA-BLUE LACTOSE AGAR is a non-selective medium used for the enumeration and differentiation of bacteria in dairy products on the basis of their capability to ferment lactose.

PRINCIPLE

Meat extract and tryptone provide nitrogen, carbon, vitamins and minerals required for organisms growth. Sodium chloride maintains the osmotic balance of the medium. Lactose is the fermentable carbohydrate. China blue is the pH indicator that changes from colorless to blue due to degradation of lactose to acid. Agar is the solidifying agent.

PREPARATION

Suspend 38.4 g of powder in 1 liter of distilled water. Heat until completely dissolved. Autoclave at 121°C for 15 minutes. Cool to 45°C before distribute in Petri dishes.

TECHNIQUE

Inoculate the culture medium by the streaking or pour-plate methods. Incubate at 36±1°C for 18-48 h in aerobiosis.

INTERPRETATION OF RESULTS

The medium does not contain any inhibitory substances therefore permits luxuriant growth of all the organisms present in dairy products. Lactose-fermenters such as *E.coli*, coliform bacteria, Staphylococci and Streptococci cultivate with blue colonies. Non-lactose fermenters such as *Salmonella*, *Serratia*, *Proteus* species and others cultivate with colorless colonies.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, 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 plates at 2-8°C away from light.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to national and local regulations in force.

REFERENCES

1. Brandi E. and Sobeck-Skal E. (1963) Milchwiss. Ber. 13:1-9.
2. Methodenbuch Band VI. Verband Deutscher Landwirtschaftlicher Untersuchungs und Forschungsanstalten (1970).



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY
Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net

PRODUCT SPECIFICATIONS

NAME

CHINA-BLUE LACTOSE AGAR

PRESENTATION

Dehydrated medium

STORAGE

10-30°C

PACKAGE

Ref.	Content	Packaging
610362	500 g	500 g of powder in plastic bottle

pH OF THE MEDIUM

7.2 ± 0.2

USE

CHINA-BLUE LACTOSE AGAR is a non-selective medium used for the enumeration and differentiation of bacteria in dairy products on the basis of their capability to ferment lactose

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Dehydrated medium

Appearance: free-flowing, homogeneous

Colour: beige

Prepared medium

Appearance: clear

Colour: pale blue

SHELF LIFE

4 years

QUALITY CONTROL

- Control of general characteristics, label and print
- Microbiological control
Inoculum for productivity: 10-100 CFU/ml
Incubation conditions: 18-48 h at 36 ± 1°C, in aerobiosis

Microorganism		Growth	Colour change to blue
<i>Escherichia coli</i>	ATCC® 25922	Good	+
<i>Proteus mirabilis</i>	ATCC® 29906	Good	-
<i>Pseudomonas aeruginosa</i>	ATCC® 27853	Good	-
<i>Enterococcus faecalis</i>	ATCC® 19433	Good	+
<i>Streptococcus agalactiae</i>	ATCC® 13813	Good	+
<i>Staphylococcus epidermidis</i>	ATCC® 12228	Good	+
<i>Bacillus cereus</i>	ATCC® 11778	Good	-

TABLE OF SYMBOLS

 LOT	Batch code	 Keep away from heat sources	 Manufacturer	 Use by	 Fragile, handle with care
 REF	Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Consult instruction for use	



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