

TM 604 – CHINA BLUE LACTOSE AGAR

INTENDED USE

For differentiation and enumeration of microorganisms in milk.

PRODUCT SUMMARY AND EXPLANATION

Raw milk as it leaves the udder of healthy animals normally contains very low numbers of microorganisms. After it leaves the udder, it may become contaminated with microorganisms from the surface of the cow, the environment, and unclean milking system. Gram-positive cocci are usually present as normal flora of raw milk. Raw milk may get contaminated with organism associated with foodborne illness through infected animals, milking personnel or the environment. The predominant bacteria in pasteurized milk are members of coliform group. China Blue Lactose Agar originally formulated by Brandl and Sobeck-skal is a standard non-inhibitory medium used for the differentiation of lactose fermenters from the non-lactose fermenters in milk. The medium does not contain any inhibitory substances therefore all the organisms present in milk sample grow luxuriantly on this medium.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	5.000
Beef extract	3.000
Lactose	10.000
Sodium chloride	5.000
China blue	0.300
Agar	15.000

PRINCIPLE

Peptone and beef extract are the sources of carbon, nitrogen and essential growth nutrients. Lactose serves as a source of energy by being the fermentable carbohydrate. Sodium chloride helps to maintain the osmotic equilibrium of the medium. China blue is the pH indicator that changes from colourless to blue due to degradation of lactose to acid, thus differentiating lactose-fermenters from non-fermenters.

INSTRUCTION FOR USE

- Dissolve 38.3 grams in 1000 ml purified / distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes. Cool to 45-50°C.
- Mix well and pour into sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to greenish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Light blue coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.0±0.2

INTERPRETATION

Cultural characteristics observed after incubation.



Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Colour of colony	Incubation Temperature	Incubation Period
<i>Enterococcus faecalis</i>	29212	50-100	Luxuriant	>=70%	Blue	35-37°C	22-24 Hours
<i>Escherichia coli</i>	25922	50-100	Luxuriant	>=70%	Blue	35-37°C	22-24 Hours
<i>Proteus vulgaris</i>	13315	50-100	Luxuriant	>=70%	Colourless	35-37°C	22-24 Hours
<i>Salmonella Typhi</i>	6539	50-100	Luxuriant	>=70%	Colourless	35-37°C	22-24 Hours
<i>Shigella flexneri</i>	12022	50-100	Luxuriant	>=70%	Colourless	35-37°C	22-24 Hours
<i>Staphylococcus aureus subsp. aureus</i>	25923	50-100	Luxuriant	>=70%	Colourless	35-37°C	22-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.










DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. Cousin M. A., 1982, J. Food Prot., 45:172.
2. De Vris T. 1975, Neth. Milk Dairy J., 29:127.
3. Thomas S. B., 1974, the Microflora of Bulk Collected Milk- Part 2, Dairy Ind. Int. 39 (8): 279



 GMP Good Manufacturing Practices Certified	 Best Before	 Quantity	 Catalogue Number	 Manufacturer
 Temperature Unit	 Lot / Batch Number	 Consults Instructions for Use	 QR Code	

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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