

Brilliant Green Bile Broth 2%

Liquid medium for detection or confirmation of coliform bacteria in water and food, according to APHA, ISO 4831 and ISO 4832.

DESCRIPTION

Brilliant Green Bile Broth 2% is a liquid medium used for the detection or confirmation of coliform bacteria in water and wastewater, foods, dairy products and other materials of sanitary importance.

Brilliant Green Bile Broth 2% is formulated according to APHA, ISO 4831 and ISO 4832.

TYPICAL FORMULA

	(g/l)
Enzymatic Digest of Casein	10.0
Lactose	10.0
Ox Bile	20.0
Brilliant Green	0.0133
Final pH 7.2 ± 0.2 at 25°C	

METHOD PRINCIPLE

Enzymatic digest of casein provides amino acids, nitrogen, carbon, vitamins and minerals for organisms growth. Lactose is the fermentable carbohydrate. Ox bile and brilliant green inhibit Gram-positive bacteria and many Gram-negative bacteria, other than coliforms.

PREPARATION

Dehydrated medium Suspend 40.0* g of the powder in 1 liter of distilled or deionized water. Mix well. Heat to boil shaking frequently until completely dissolved. Distribute into 10 ml tubes with Durham gas collecting tube. Sterilize in autoclave at 118°C for 15 minutes.

*Dissolve 80.0 g of the powder in 1 liter of distilled or deionized water to make the double strength broth.

Medium in bottles Aseptically, dispense the medium into tubes fitted with Durham tubes.

TEST PROCEDURE

- For coliforms detection, inoculate tubes with 1 ml diluted or undiluted sample (use double strength broth for larger volume samples). For use in the confirmation of presumptive tests, subculture from Lauryl Sulphate Tryptose Broth (ref. 21453) or from typical coliform colonies on Violet Red Bile Lactose Agar (ref. 11183).
- To indicate the presence of *Escherichia coli*, incubate at 44 ± 1°C for 48 hours. ISO 4831 and ISO 4832 recommend to incubate at 30°C or 37°C for 24-48 hours.
- Examine tubes for gas formation.

INTERPRETING RESULTS

Turbidity and gas production indicate coli-aerogenes organisms.

APPEARANCE

Dehydrated medium: free-flowing, homogeneous, green-beige.

Prepared medium: clear, green.

STORAGE

The powder is very hygroscopic, store the powder at 10-30°C, in a dry environment, in its original container tightly closed. Store bottles and tubes at 10-25°C away from light. Do not use the product beyond its expiry date on the label or if product shows any evidence of contamination or any sign of deterioration.

SHELF LIFE

Dehydrated medium: 4 years.

Medium in tubes/bottles: 2 years.

Distribué par :

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QUALITY CONTROL

According to ISO 11133, tubes are inoculated with the microbial strains indicated in the QC table.

Inoculum for productivity: ≤ 100 CFU

Inoculum for selectivity: $> 10^3$ CFU

Incubation conditions: $30 \pm 1^\circ\text{C}$ for 24-48 hours.

QC Table.

Microorganism		Growth	Gas
<i>Escherichia coli</i>	WDCM 00012	Good	+
<i>Escherichia coli</i>	WDCM 00013	Good	+
<i>Citrobacter freundii</i>	WDCM 00006	Good	+
<i>Enterococcus faecalis</i>	WDCM 00009	Partially to completely inhibited	-
<i>Enterococcus faecalis</i>	WDCM 00087	Partially to completely inhibited	-

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 is intended for professional use only and must be used by properly trained operators.

DISPOSAL OF WASTE









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

BIBLIOGRAPHY

1. Clesceri, Greenberg and Eaton (1998) Standard methods for the examination of water and wastewater, 20th ed. American Public Health Association (APHA), Washington, D.C.
2. Marshall (1993) Standard methods for the examination of dairy products, 16th ed. American Public Health Association (APHA), Washington, D.C.
3. ISO 4831 (2006) Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coliforms – Most probable number technique.
4. ISO 4832 (2006) Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of coliforms – Colony Count technique.
5. ISO 11133 (2014) Microbiology of food, animal feed and water – Preparation, production, storage and performance testing of culture media.

PRESENTATION		Contents	Ref.
Brilliant Green Bile Broth 2%	Tubes	10 x 10 ml tubes	20102
Brilliant Green Bile Broth 2%	Tubes	20 x 10 ml tubes	24102
Brilliant Green Bile Broth 2%	Slant tubes	100 x 10 ml tubes	26102
Brilliant Green Bile Broth 2%	Bottles	6 x 100 ml bottles	402560
Brilliant Green Bile Broth 2%	Dehydrated medium	500 g of powder	610010
Brilliant Green Bile Broth 2%	Dehydrated medium	100 g of powder	620010
Brilliant Green Bile Broth 2%	Dehydrated medium	5 kg of powder	6100105

TABLE OF SYMBOLS

LOT Batch code	 Keep away from sunlight	 Manufacturer	 Use by	 Fragile, handle with care
REF Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult Instruction For Use	 Do not reuse

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