

Brilliant Green Lactose Bile Broth

Catalog : HB0104-1

Brilliant Green Lactose Bile Broth is used for the detection of coliform organisms in foods, dairy products, water and wastewater, as well as in other materials of sanitary importance.

Approximate Formula:

Ingredients	gm/liter
Peptone	10.0
Lactose	10.0
Ox Bile	20.0
Brilliant Green	0.0133
Final pH 7.2±0.2 at 25°C	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 40.0g of the powder in 1L of purified water. Mix thoroughly. Warm slightly to completely dissolve the powder. Dispense into tubes containing inverted fermentation vials. Autoclave at 121°C for 15 minutes. Cool the broth as quickly as possible.

Principle and Interpretation:

Peptone act as a source of nitrogen, carbon and amino acids. Ox bile and brilliant green are inhibitors of both gram-positive and selected gram-negative organism. Organisms, primarily coliforms, which are resistant to the action of the inhibitors and can ferment the lactose, are able to replicate in this medium. Fermentation is detected by gas production.

Appearance:

Dehydrated medium is a free-flowing yellowish-green powder. The prepared medium is a kind of green transparent liquid.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Brilliant Green Lactose Bile Broth must be stored tightly capped in the original container at 5-30°C. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8°C.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 36±1°C for 24-48 hours.

Microorganism	Strains Number	Inoculum (CFU)	Growth	Remarks
<i>Salmonella typhimurium</i>	ATCC 14028	10-100	Luxuriant	Turbidity 2; non-aerosis
<i>Citrobacter freundii</i>	ATCC 43864	10-100	Luxuriant	Turbidity2; and gas is full with 1/3 of tube
<i>Enterococcus faecalis</i>	ATCC 29212	1000-5000	Inhibited	Turbidity 0(no growth)
<i>Escherichia coli</i>	ATCC 25922	10-100	Luxuriant	Turbidity2; and gas is full with 1/3 of tube

References:

- 1.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.
- 2.Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products, 17th ed.American Public Health Association, Washington, D.C.
- 3.U.S. Food and Drug Administration. 2001. Bacteriological analytical manual, online. AOAC International,Gaithersburg, Md.
- 4.Horwitz (ed.). 2007. Official methods of analysis of AOAC International, 18th ed., online. AOACInternational, Gaithersburg, Md.
- 5.Downes and Ito (ed.). 2001. Compendium of methods for the microbiological examination of foods,4th ed. American Public Health Association, Washington, D.C.