PRODUCT CODE: 413748

Brilliant Green Bile 2% Broth (ISO 4831, ISO 4832)(Dehydrated Culture Media) for microbiology

Preparation

Suspend 39 grams of medium in one litre of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 118-121ºC for 15 minutes. Cool to 45-50ºC, mix well and dispense into plates.

The prepared medium should be stored at 8-15°C. The colour is amber, slightly opalescent. The dehydrated medium should be homogeneous, free-flowing and beige in colour. If there are any physical changes, discard the medium.

Uses

POTATO DEXTROSE AGAR is recommended by APHA and F.D.A for culturing yeast and molds from dairy products and foods. It can also be used in the identification of fungi and yeasts in parallel with their cellular morphology, or in methods of micro cultivation in slides. This general purpose medium can be supplemented with acid or antibiotics to inhibit bacterial growth. The nutritionally rich base (potato infusion) encourages a very rich fungal and mold growth.

Dextrose is the fermentable carbohydrate as a carbon and energy source. Bacteriological Agar is the solidifying agent. Inoculate the medium with test organisms. Incubate plates at 25-30°C for 18-48 hours. If the cultivation of Trichophyton mentagrophytes is desired, incubate up to 5-7 days. Yeasts will grow as cream to white colonies.

Molds will grow as fuzzy colonies of various colours. To differentiate and isolate genus and species, carry out further Microscopic and Biochemical tests. When the medium is to be used for the enumeration of yeasts and molds, the pH should be lowered to inhibit bacteriological growth.

Add to the cooled to 45 - 50°C sterilized medium, approximately 14 ml of a sterilized 10% solution of tartaric acid to obtain a pH of 3.5. Do not reheat the adjusted medium after adding the acid because the agar may hydrolyse and not solidify.

The EUROPEAN PHARMACOPOEIA, USP recommends in Paragraph 2.6.12 “Microbiological examination of non – sterile products: Microbial enumeration test. Preparation and use of test microorganisms”: inoculation of *Aspergillus brasiliensis* at 20-25ºC for 5-7 days or until good sporulation is achieved.

Composition

See in Data Sheet (TDS).

Microbiological Test

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 37°C and 44.5°C and observed after 24 - 48 hours.

		Gas Production	
Microorganism	**Growth**	**37ºC**	**44.5ºC**
**Escherichia coli ATCC 25922*	Good	+	+
Enterobacter aerogenes ATCC 13048	Good	+	-
Staphylococcus aureus ATCC 25923	Inhibited	-	-
Enterococcus faecalis ATCC 19433	Inhibited	-	-

**According ISO 4831– ISO 4832 incubate at 30 or 37°C for 24 ± 2 hours and 48 ± 2 hours.*

According to ISO 11133 24-48h/30±1°C (Productivity, Selectivity)

Microorganism	Inoculum (CFU)	Productivity Quantitative	Selectivity Qualitative	Characteristic Reaction
Escherichia coli ATCC 8739	$10\text{-}10^2$	Turbidity (2) and gas in Durham tube	-	Gas production and Turbidity
Escherichia coli ATCC 25922	$10\text{-}10^2$	Turbidity (2) and gas in Durham tube	-	Gas production and Turbidity
Citrobacter freundii ATCC 43864	$10\text{-}10^2$	Turbidity (2) and gas in Durham tube	-	Gas production and Turbidity
Enterococcus faecalis ATCC 29212	$10^3\text{-}10^4$	-	Inhibited without gas production	-

Storage

Once opened keep powdered medium closed to avoid hydration.

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