

Brilliant Green, Phenol Red, Lactose Monohydrate, Sucrose Agar (Agar Medium L) EP

Intended Use

Brilliant Green, Phenol Red, Lactose Monohydrate, Sucrose Agar is used for selective isolation of *Salmonellae* other than *S. typhi* from foods, faeces, dairy products and other samples in compliance with EP.

Summary

Kristensen *et al.*, first described Brilliant Green Agar as a primary plating medium for isolation of *Salmonella*, which was further modified by Kauffmann. This medium is more selective than Deoxycholate Citrate Agar and other brilliant green media. The advantages claimed for the medium are that it inhibits the growth of *E. coli*, *Pseudomonas aeruginosa* and partially inhibits the growth of *Proteus* species, which may resemble *Salmonella*. *S. cholerasuis* grows well on this medium compared to Deoxycholate Citrate Agar. Brilliant Green Agar is recommended by APHA for food testing, USP and IP.

Principle

Peptone provides carbon, nitrogen and other growth factors while yeast extract provides B complex vitamins. Lactose and sucrose are carbohydrate sources. Sodium chloride maintains the osmotic balance. Brilliant green inhibits majority of gram-positive and gram-negative bacteria, allowing *Salmonella* to grow. *S. typhi*, *E. coli*, *Staphylococcus aureus*, *Shigella*, *Pseudomonas* and *Proteus* species are mostly inhibited. In the presence of phenol red, lactose and sucrose, nonfermenting *Salmonella* will form white to pinkish red colonies while fermenters will form yellow colonies.

Formula*

Ingredients	g/L
Peptone (Cara Meat [#] and Casein)	10.0
Yeast Extract	3.0
Sucrose	10.0
Lactose Monohydrate	10.0
Sodium Chloride	5.0
Phenol Red	0.08
Brilliant Green	0.0125
Agar	20.0
Final pH (at 25°C)	6.9 ± 0.2

*Adjusted to suit performance parameters.

[#]Equivalent to Meat Peptone

Storage and Stability

Store dehydrated medium below 30°C in tightly closed container and the prepared medium at 2°C-8°C. Avoid freezing and overheating. Use before expiry date on the label. Once opened keep powdered medium closed to avoid hydration.

Type of specimen

Clinical samples – faeces

Food and dairy samples

Specimen Collection and Handling

Ensure that all samples are properly labelled.

Follow appropriate techniques for handling samples as per established guidelines.

Some samples may require special handling, such as immediate refrigeration or protection from light, follow the standard procedure.

The samples must be stored and tested within the permissible time duration.

After use, contaminated materials must be sterilized by autoclaving before discarding

Directions

1. Suspend 58.09 g of powder in 1000 mL purified / distilled water and mix well.
2. Boil with frequent agitation to dissolve the powder completely. AVOID OVERHEATING.
3. Sterilize by autoclaving at 121°C (15 psi) for 15 minutes as per validated cycle.
4. To increase the selectivity, aseptically add 2 vials of Sulpha Supplement (204191360005) and mix well before pouring into sterile petridishes.

Quality Control

Dehydrated Appearance: Pink coloured, homogeneous, free flowing powder.

Prepared Appearance: Greenish brown to orange brown coloured, clear to slightly opalescent gel forms in petridishes.

Cultural Response: Cultural characteristics observed after incubation at 30°C-35°C for 24-48 hours.

Organism (ATCC)	Growth	Colour of Colony
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhimurium</i> (14028)	Good	Pinkish white
<i>Escherichia coli</i> (25922)	Partial inhibition	Green
<i>Proteus mirabilis</i> (25933)	Partial inhibition	Red

Performance and Evaluation

Performance of the product is dependent on following parameters as per product label claim:

1. Directions
2. Storage
3. Expiry

Warranty

This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

Reference

1. Kristensen M; Lester V and Jurgens A; 1925, Brit. J. Exp. Pathol; 6; 291.
2. IP, 1996, Ministry of Health and Family Welfare, Govt. of India, Vol.2.
3. US Pharmacopeial Convention, Inc. 2001. The United States Pharmacopeia 25/NF20-2002. The US Pharmacopeia Convention, Inc; Rockville, Md.
4. Downes and Ito (ed.) 2001, Compendium Of Methods for The Microbiological Examination of Foods, 4th edition, APHA Washington DC.
5. Data on file: Microxpress®, A Division of Tulip Diagnostics (P) Ltd.

Product Presentation:

Cat No.	Product description	Pack Size
201020290100	Dehydrated Culture Media	100 g
201020290500	Dehydrated Culture Media	500 g

 Temperature Limit	 Manufacturer	 LOT	Batch Code	 Date of Manufacture	 This way up	 Received on
REF Catalogue Number	 Consult Instructions for use		 Use-by Date	 Hygroscopic keep container tightly closed		OO Opened on

Revision: 0725/VER-03

Disclaimer

Information provided is based on our inhouse technical data on file, it is recommended that user should validate at his end for suitable use of the product.