Technical Data Sheet

CE Brilliant-Green Phenol-Red Lactose Sucrose (BPLS) Agar

acc. EP/USP

Ordering number: 1.07232.0500

Brilliant-green phenol-red lactose sucrose (BPLS) agar is a highly selective agar for the isolation of *Salmonella* with the exception of *Salmonella typhosa* and *Shigella* from pathological materials, faeces, urine, pharmaceutical materials, etc.

This medium complies with the recommendations of the United States Pharmacopeia XXIII (1995) and the European Pharmacopeia II (2003).

IVD in vitro diagnosticum - For professional use only

Mode of Action

This culture medium contains lactose, whose degradation to acid is indicated by the pH indicator phenol red, which changes its color to yellow. The indicator exhibits a deep red color in the alkaline range. The growth of the accompanying Gram-positive microbial flora, *Salmonella* typhi and *Shigella* is largely inhibited by brilliant green. The growth of *Salmonella* is, however, improved by the richer nutrient base. Increased growth of accompanying microorganisms is considerably prevented by raising the concentration of brilliant green. *Salmonellae* are not able to ferment either lactose or sucrose. Thus in contrast to BPL agar, the sucrose contained in this medium allows identification of accompanying, weakly lactose-positive or lactose-negative, but sucrose-positive microorganisms.

Typical Composition

Peptone from Meat, peptic	5 g/l
Peptone from Casein	5 g/l
Yeast Extract	3 g/l
NaCl	5 g/l
Lactose	10 g/l
Sucrose	10 g/l
Phenol Red	0.08 g/l
Brilliant Green	0.0125 g/l
Agar-Agar	13 g/l

Preparation

Suspend 51 g/l. Autoclave 15 min at 121 °C. Pour plates.

The appearance of the prepared plates is clear and dark red.

The pH at 25 °C is in the range of 6.7 -7.1.

Specimen

e.g. Stool, urine.

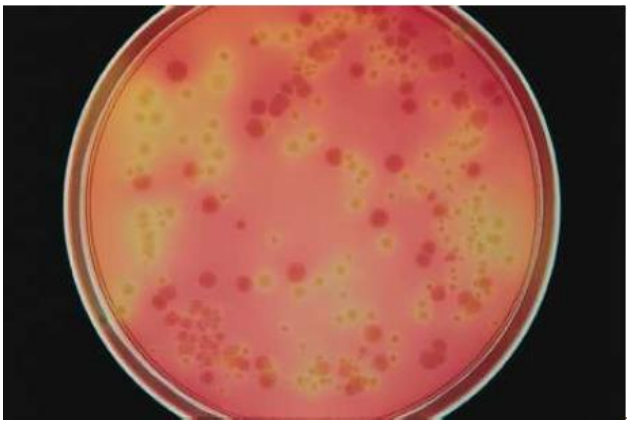
Clinical specimen collection, handling and processing. See general instructions of use.

Experimental Procedure and Evaluation

Inoculate the plates with the sample material itself or material taken from an enriched culture. Tests should also be performed with less inhibitory culture media.

Incubation: 24 h at 35 °C aerobically.

Appearance of Colonies	Microorganisms
Pink surrounded by a red zone	Lactose- and sucrose-negative: *Salmonella* and others
Yellow-green surrounded by a yellow-green zone	Lactose- or sucrose-positive: *E. coli, Citrobacter, Proteus vulgaris, Klebsiella* and others. Occasionally complete inhibition of growth.



Storage

The product can be used for sampling until the expiry date if stored upright, protected from light and properly sealed at +15 °C to +25 °C.

After first opening of the bottle the content can be used up to the expiry date when stored dry and tightly closed at +15 to +25° C.

Disposal

Please mind the respective regulations for the disposal of used culture medium (e.g. autoclave for 20 min at 121 °C, disinfect, incinerate etc.).

Quality Control

Control Strains	ATCC #	Inoculum CFU	Incubation	Expected Results
Salmonella typhimurium	14028	10-1000	24 h at 35 °C	Recovery ≥ 40 %, pink colony color
Salmonella choleraesius	13312	10-1000	24 h at 35 °C	Recovery ≥ 40 %, pink colony color
Salmonella enteritidis	5188	10-1000	24 h at 35 °C	Recovery ≥ 40 %, pink colony color
Escherichia coli	25922	10-1000	24 h at 35 °C	No recovery limit, yellow colony color
Proteus hauseri	13315	10-1000	24 h at 35 °C	No recovery limit, yellow colony color
Staphylococcus aureus	25923	≥ 10^4	24 h at 35 °C	No recovery limit
Enterococcus faecalis	33186	≥ 10^4	24 h at 35 °C	No recovery limit
Bacillus subtilis	6633	≥ 10^4	24 h at 35 °C	No recovery limit

Please refer to the actual batch related Certificate of Analysis.

Literature

European Pharmacopeia II (2003). Chapter VIII. 10.

Morinigo, M.A., Martinez-Manzanares, E., Muncoz, A., Cornax, R., Romero, P. and Borrego J.J. (1989). Evaluation of different plating media used in the isolation of *salmonellas* from environmental samples. J. Appl. Bact. **66**: 353-360.

United States Pharmacopeia XXIII (1995). Chapter "Microbial Limit Tests".

Ordering Information

Product	Cat. No.	Pack size
BPLS Agar (USP) (Brillant-green Phenol-red Lactose Sucrose Agar)	1.07232.0500	500 g

Merck KGaA, 64271 Darmstadt, Germany
Fax: +49 (0) 61 51 / 72-60 80
mibio@merckgroup.com
www.merckmillipore.com/biomonitoring

Find contact information for your country at:
www.merckmillipore.com/offices
For Technical Service, please visit:
www.merckmillipore.com/techservice