

## Technical Data Sheet

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

Ordering number: 1.07237.0500

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, foodstuffs, pharmaceutical materials, etc.

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	5 g/l
Peptone from Casein	5 g/l
Meat Extract	5 g/l
NaCl	3 g/l
KH <sub>2</sub> PO <sub>4</sub>	2 g/l
Lactose	10 g/l
Sucrose	10 g/l
Phenol Red	0.08 g/l
Brilliant Green	0.0125 g/l
Agar-Agar	12 g/l

### Preparation

Suspend 57 g/l. Autoclave 15 min at 121 °C. Pour plates.

The appearance of the prepared plates is clear and 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: <i>Salmonella</i> and others
Yellow-green surrounded by a yellow-green zone	Lactose- or sucrose-positive: <i>E. coli</i> , <i>Citrobacter</i> , <i>Proteus vulgaris</i> , <i>Klebsiella</i> and others. Occasionally complete inhibition of growth.



*Escherichia coli* ATCC 25922



*Salmonella typhimurium* ATCC 14028

### 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.).



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## Quality Control

Control Strains	ATCC #	Incubation	Expected Results
<i>Salmonella typhimurium</i>	14028	24 h at 35 °C	Recovery ≥ 70 %, pink colony color
<i>Salmonella choleraesius</i>	13312	24 h at 35 °C	Recovery ≥ 70 %, pink colony color
<i>Salmonella enteritidis</i>	5188	24 h at 35 °C	Recovery ≥ 70 %, pink colony color
<i>Escherichia coli</i>	25922	24 h at 35 °C	Yellow colony color
<i>Proteus hauseri</i>	13315	24 h at 35 °C	Yellow colony color
<i>Staphylococcus aureus</i>	25923	24 h at 35 °C	Yellow colony color
<i>Enterococcus faecalis</i>	33186	24 h at 35 °C	Yellow colony color
<i>Bacillus subtilis</i>	6633	24 h at 35 °C	Yellow/orange colony color

Please refer to the actual batch related Certificate of Analysis.

## Literature

Bopp, C. A., F. W. Brenner, P. I. Fields, J. G. Wells, and N. A. Stockbrine. 2003. Escherichia, Shigella, and Salmonella. In: Murray, P. R., E. J. Baron, J.H. Jorgensen, M. A. Pfaller, and R. H. Tenover (ed.). Manual of clinical microbiology, 8th ed. American Society for Microbiology, Washington, D.C.

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Kristensen M., Lester V, and Jurgens A., 1925, Brit.J.Exp.Pathol.,6:291.

MacFaddin, J. 1985. Media for the isolation-cultivation- identification-maintenance of medical bacteria. Williams and Wilkins, Baltimore, USA.

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.

## Ordering Information

Product	Cat. No.	Pack size
BPLS Agar (Brilliant-green Phenol-red Lactose Sucrose Agar)	1.07237.0500	500 g

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