BPLS Agar (USP)
(Brilliant-green Phenol-red Lactose Sucrose Agar)

Selective agar for the isolation of Salmonella with the exception of S. typhosa and Shigella from pathological materials, faeces, urine, foodstuffs, pharmaceutical materials, etc.

IVD *in vitro diagnosticum –*
For professional use only

See also General Instruction of Use
Warnings and precautions see ChemDAT®
(www.chemdat.info)

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

Principle
Microbiological method

Mode of Action
This culture medium contains lactose, whose degradation to acid is indicated by the pH indicator phenol red, which changes its colour to yellow. The indicator exhibits a deep red colour 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 (g/litre)
Peptone from meat, peptic 5.0; peptone from casein 5.0; yeast extract 3.0; sodium chloride 5.0; lactose 10.0; sucrose 10.0; phenol red 0.08; brilliant green 0.0125; agar-agar 13.0.

Preparation and Storage
Usable up to the expiry date when stored dry and tightly closed at +15 to +25°C. Protect from light.

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.

Suspend 51 g/litre, autoclave (15 min at 121°C), pour plates.

pH: 6.9 ± 0.2 at 25 °C.

The plates are clear and red-brown.

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 hours 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.

Literature

European Pharmacopeia II, Chapter VIII. 10.

United States Pharmacopeia XXVI, Chapter "Microbial Limit Tests", 1995.

Ordering Information

Product	Merck Cat. No.	Pack size
BPLS Agar (USP) (Brillant-green Phenol-red Lactose Sucrose Agar)	1.07232.0500	500 g
Merckoplate® BPLS Agar (USP)	1.00855.0020	1 x 20 plates

Quality control

Test strains	Recovery rate (%)	Colony colour	Medium colour
Salmonella typhimurium ATCC 14028	≥ 40	red	red
Salmonella choleraesius ATCC 13312	≥ 40	red	red
Salmonella enteritidis NCTC 5188	≥ 40	red	red
Escherichia coli ATCC 25922	not limited	yellow	yellow
Staphylococcus aureus ATCC 25923	≤ 0.01		
Enterococcus faecalis ATCC 33186	≤ 0.01		
Bacillus subtilis ATCC 6633	≤ 0.01		