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

Selective culture medium for the isolation of Salmonella with the exception of S. typhosa and Shigella from pathological material, faeces, urine, foodstuffs etc.

IVD

In Vitro Diagnostic Medical Device –

For professional use only

CE

Version 17-10-2008
Merck KGaA, 64271 Darmstadt

See also General Instruction for Use „How to use Dehydrated Culture Media"

For MSDS, warnings and precautions see our website: www.merck-chemicals.com

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 5.0; peptone from casein 5.0; meat extract 5.0; sodium chloride 3.0; di-sodium hydrogen phosphate 2.0; lactose 10.0; sucrose 10.0; phenol red 0.08; brilliant green 0.0125; agar-agar 12.0.

Preparation

Suspend 57 g/litre, autoclave (15 min at 121 °C), pour plates.

pH: 6.9 ± 0.2 at 25 °C.

The plates are clear and red.

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.

Specimen

e.g. Stool, urine. Clinical specimen collection, handling and processing, see general instructions of use.

Experimental Procedure

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.

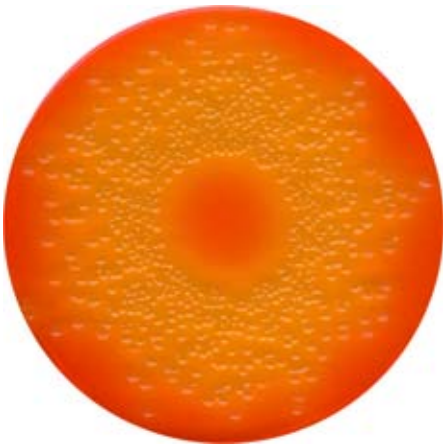
Ordering Information

Product	Ordering No.	Pack size
BPLS Agar (Brilliant-green Phenol-red Lactose Sucrose Agar)	1.07237.0500	500 g
Merckoplate ® BPLS Agar	1.15164.0001	1 x 20 plates

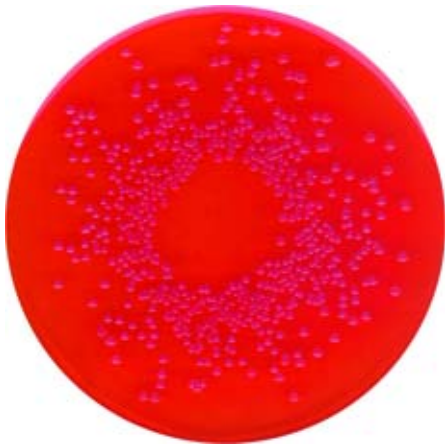
BPLS Agar (Brilliant-green Phenol-red Lactose Sucrose Agar)

Quality control (spiral plating method)

Test strains	Inoculum (cfu/ml)	Recovery rate (%)	Colony colour	Culture medium
Salmonella typhimurium ATCC 14028	10^3-10^5	≥ 70	pink	red
Salmonella choleraesius ATCC 13312	10^3-10^5	≥ 70	pink	red
Salmonella enteritidis NCTC 5188	10^3-10^5	≥ 70	pink	red
Escherichia coli ATCC 25922	10^3-10^5	≥ 70	yellow	yellow
Proteus vulgaris ATCC 13315	10^3-10^5	≥ 70	yellow	yellow
Staphylococcus aureus ATCC 25923	10^3-10^5	not limited	yellow	yellow
Enterococcus faecalis ATCC 33186	10^3-10^5	not limited	yellow	yellow
Bacillus subtilis ATCC 6633	10^3-10^5	not limited	orange / yellow	yellow



Escherichia coli ATCC 25922



Salmonella typhimurium ATCC 14028