

BRILLIANT GREEN AGAR (MODIFIED) ISO 6579

CAT Nº: 1143

For the selective isolation of *Salmonella*

FORMULA IN g/l

Lactose	10.00	Disodium Phosphate	1.00
Sucrose	10.00	Monosodium Phosphate	0.60
Meat Peptone	5.00	Phenol Red	0.09
Beef Extract	5.00	Brilliant Green	0.005
Casein Peptone	5.00	Bacteriological Agar	15.00
Yeast Extract	3.00		

Final pH 6.9 ± 0.2 at 25°C

PREPARATION

Suspend 54.7 grams of the dehydrated medium in one liter of distilled water and leave for 15 minutes. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. **AVOID OVERHEATING. DO NOT AUTOCLAVE.** Dispense into appropriate containers. The prepared medium should be store at 8-15°C. The color is red.

The dehydrated medium should be homogeneous, free-flowing and red in color. If there are any physical changes, discard the medium.

USES

BRILLIANT GREEN AGAR (Modified) is a selective medium for the isolation of *Salmonella*, except for *S.typhi*, from water, food and animal feed stuffs.

This medium is recommended by ISO normative 6579:1998 as the first selective medium used for the isolation and identification of Salmonella. The ISO normative 6579:2002 recommends as first selective medium the XLD Agar instead of the Brilliant Green Agar however it informs that Brilliant Green Agar can be used as a second selective medium.

Brilliant Green Agar Modified inhibits the growth of *Pseudomonas aeruginosa* and partially inhibits the growth of *Proteus spp.* which may be similar in appearance to *Salmonella*.

Beef extract, Casein peptone and Meat peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group essential for bacterial growth. Lactose and Sucrose are the fermentable carbohydrate providing carbon and energy. Phenol red is the pH indicato. Brilliant green inhibits Gram-positive and most Gram-negative bacteria, except *Salmonella*. Bacteriological agar is the solidifying agent.

Inoculate and Incubate at 37°C ± 1°C for 24 ± 3 hours

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 37°C ± 1°C and observed after 24 ± 3 hours

Microorganisms	Growth	Colony Color
<i>Salmonella enteritidis</i> ATCC 13076	Good	Red colonies, surrounded by a diffused red halo
<i>Salmonella typhimurium</i> ATCC 14028	Good	Red colonies, surrounded by a diffused red halo
<i>Escherichia coli</i> ATCC 25922	Inhibited – Moderate	Yellow-Green
<i>Salmonella typhi</i> ATCC 19430	Inhibited – Moderate	Red
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited	-

BIBLIOGRAPHY

UNE-EN-ISO 6579 Microbiology of food and animal feeding stuffs -- Horizontal method for the detection of Salmonella spp.



STORAGE

Once opened keep powdered medium closed to avoid hydration.

