

# Brilliant Green Agar (BGA)

Art. No. 01-203

## Also known as

Brilliant Green Phenol Red Lactose Agar; BPLA

## Specification

Medium for *Salmonella* isolation, according to the European Pharmacopoeia.

## Formula\* in g/L

Meat peptone.....	5,0000
Casein peptone.....	5,0000
Sodium chloride.....	5,0000
Yeast extract.....	3,0000
Lactose.....	10,0000
Sucrose.....	10,0000
Phenol red.....	0,0800
Brilliant green.....	0,0125
Agar.....	15,0000
Final pH 7,0 ± 0,2 at 25°C	

\* Adjusted and /or supplemented as required to meet performance criteria

## Directions

Suspend 53 g of powder in 1 L of distilled water and bring to the boil stirring constantly. Dispense into containers and sterilize in the autoclave at 121°C for 15 minutes.

## Description

BGA is a differential selective medium, able to detect the presence of enteropathogenic bacteria in different samples. This medium is a modification to Kauffman's original formulation, and it complies with the WMO, Eur. Pharm., USP and APHA specifications.

Since it has a high brilliant green concentration, it inhibits the growth of most bacteria, except *Salmonella*. However, *S. typhi* and *S. paratyphi* are also inhibited. Therefore, when their presence or *Shigella* is suspected, it is recommended to use other media in parallel, such as Deoxycholate Lactose Agar (Art. No. 01-057), MacConkey Agar (Art. No. 01-118), *Salmonella-Shigella* Agar (Art. No. 01-555), Xylose Lysine Deoxycholate Agar (Art. No. 1-552) or Endo Agar Base (Art. No. 01-589), which are less inhibitory.

The presence of lactose and sucrose allows a good differentiation between *Salmonella*, which produce pink or colourless colonies with a red halo or zone, and the companion microbiota, which produce smaller and green yellowish colonies with a yellow halo, due to acid created by lactose and/or sucrose fermentation.

Osborn and Stokes suggested the addition of 0,08 g/L of sulfadiazine or 1 g/L of sulfapyridine in order to make this medium more selective for *Salmonella* and therefore making the medium more suitable for the testing of food and eggs and their derivatives.

## References

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## Storage

For laboratory use only. Keep tightly closed, away from bright light, in a cool dry place (+4°C to 30°C and <60% RH).

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## Quality control

**Incubation temperature:** 35°C ± 2.0

**Incubation time:** 24 - 48 h

**Inoculum:** 10-100 CFU (Productivity) // 1.000-10.000 CFU (Selectivity). Spiral Plate Method (ISO/TS 11133-1/2)

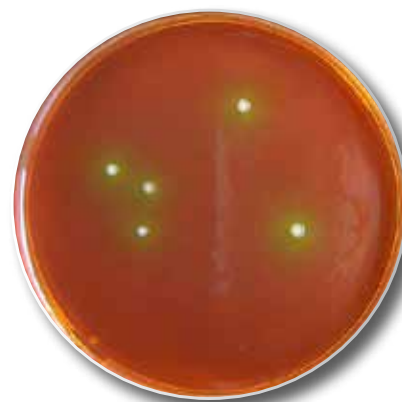
Microorganism	Growth	Remarks
<i>Enterococcus faecalis</i> ATCC 29212	Total inhibition	-
<i>Escherichia coli</i> ATCC 25922	Partial inhibition	Green-Yellow colonies w. yellow halo
<i>Salmonella typhimurium</i> ATCC 14028	Productivity > 0.70	Pink to red colonies and red medium
<i>Salmonella abony</i> NCTC 6017	Productivity > 0.70	Pink to red colonies and red medium
<i>Salmonella enteritidis</i> ATCC 13076	Productivity > 0.70	Pink to red colonies and red medium



*Salmonella typhimurium* ATCC 14028



*Salmonella abony* NCTC 6017



*Escherichia coli* ATCC 25922