

Brilliant Green Agar

Highly selective medium for the isolation of *Salmonella*

Formula in grams per liter:

Peptone Mixture	10,00	Lactose	10,00
Sucrose	10,00	Sodium Chloride	5,00
Yeast Extract	3,00	Phenol Red	0,08
Brilliant Green	0,0125	Bacteriological Agar	20,00

Final pH: $x \pm 0,2$ at 25 °C

Preparation:

Suspend 58 grams of the medium in one litre of distilled water. Mix well and heat with frequent agitation. Boil for one minute. Dispense and sterilize at 121°C (15 lbs. sp.) for 15 minutes. Cool the medium to 45-50°C pour into Petri plates, and if necessary, leave to dry about 2 hours with the covers partially removed.

Uses:

As this medium is very inhibitor, inoculate the plates with a loop fully loaded with the material under study. At the same time inoculate other selective media that are less inhibitive such as Desoxycholate Agar, *Salmonella Shigella* Agar, XLD Agar, MacConkey Agar, EMB Agar, Hektoen Enteric Agar. When there is a suspicion that the material under study contains low concentrations of *Salmonella*, it is necessary to initially inoculate the sample in Tetrathionate Broth or Selenite Cystine Broth.

The medium, which has a coffee color at the beginning, changes to red during the incubation at 37°C. The germs which degrade the lactose are completely inhibited, and some of the not inhibited strains present green-yellow colonies, opaque and surrounded by a yellowish halo. The lactose negative microorganisms, such as *Salmonella* and *Proteus* form colonies of a pale pink color, transparent and surrounded by a brilliant red halo. Some *Proteus* form red colonies.

Microbiological Tests:

Microorganisms	Growth	Colony color
<i>Escherichia coli</i> ATCC 25922	Inhibited-moderate	Yellow-green
<i>Salmonella enteritidis</i> ATCC 13076	Good	Pink-white
<i>Staphylococcus aureus</i> ATCC 25923	Inhibited	-
<i>Salmonella typhi</i> ATCC 19430	Inhibited-moderate	Red
<i>Salmonella typhimurium</i> ATCC 14028	Good	Pink-white

