BRILLIANT GREEN AGAR (BGA)

INSTRUCTION FOR USE READY-TO-USE PLATED MEDIA

For professional use

Intended use: Brilliant Green Agar is used for the selective isolation of *Salmonella* spp.

Ref.:	Type of medium:	Packaging:
201360	ready-to-use medium-plate	1x20 pcs (90 mm)

1. Principle: enzymatic digest of casein and enzymatic digest of animal tissue provide sources of nitrogen, amino acids, and carbon. Yeast extract supplies vitamins required for organism growth. Sodium chloride maintains the osmotic balance of the medium. Lactose and sucrose are the carbohydrates in the medium. Brilliant green inhibits Gram-positive bacteria and most Gram-negative bacilli other than *Salmonella* spp. Phenol red is the pH indicator and turns the medium yellow with the formation of acid when lactose and/or sucrose is fermented. Agar is the solidifying agent.

2. Formula/Liter:

Enzymatic digest of casein	5.0 g
Enzymatic digest of animal tissue	5.0 g
Yeast extract	3.0 g
Sodium chloride	5.0 g
Sucrose	10.0 g
Lactose	10.0 g
Brilliant green	0.0125 g
Phenol red	0.08 g
Agar	20.0 g

3. pH: 6.9 ± 0.2 at 25°C.

4. Appearance:

Prepared Appearance: prepared medium is clear and green-brown.

5. Sample: all samples in which *Salmonella* spp. are expected.

6. Test procedure: if the agar plate has been refrigerated, allow to warm to room temperature before inoculation. Streak the specimen for isolation onto the surface of the medium. If the specimen is cultured from a swab, roll the swab gently over a small area of the surface at the edge, then streak from this area with a loop. Incubate plates aerobically at 35±2°C for 18-24 hours in an inverted position.

7. Results: after incubation time observe growth of characteristic microorganisms. Identification of the microorganism should be confirmed by biochemical test.

8. Quality control: : perform quality control testing for both negative and positive reaction by inoculating a representative sample of plates with pure cultures of stable control organisms that produce known, desired reactions. Graso uses following strains for performing quality control. Please note that other strains can be used in accordance with applicable local, state and laboratory's standard Quality Control.

Microorganism:	Appearance of colony:	Growth:
Salmonella typhimurium ATCC 14028	pink	good growth (2)
Escherichia coli ATCC 25922	green	partial inhibition of growth
Enterococcus faecalis ATCC 29212	—	no growth

9. Precautions: colonies of *Salmonella* spp. can be red, pink, or white depending on length of incubation and strain. Medium is normally green-brown, however after incubation it can turn bright red and return to normal colour at room temperature. Slow lactose fermenters, *Proteus*, *Citrobacter*, and *Pseudomonas* may grow on BG Agar as red colonies. Other prepared media should be used along with Brilliant Green Agar when testing for intestinal pathogens.

10. Disposal of waste: after use, all plates and any other contaminated materials must be sterilized or disposed of in line with appropriate internal procedures and in accordance with local legislations. Plates can be destroyed by autoclaving at 121°C for at least 20 minutes.

11. Storage: on receipt, store plates at 2-12°C away from direct sun light in an inverted position. Do not overload a refrigerator with excessive amounts of plates to avoid water condensation on the lids during storage. Plates must not come into direct contact with the inner walls of refrigerator, as the media may freeze, invalidating the tests. Prepared plates, stored in their original sleeve wrapping at 2-12°C until just prior to use, may be inoculated up to the expiration date and incubated for recommended incubation times. Plates from opened stacks of 10 plates should be used for two weeks when stored in a clean area at 2 to 12° C. Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking or others signs of deterioration. Allow the medium to warm to the room temperature before inoculation.

All microbiological media containing dyes or light-sensitive components should be protected from light and stored in the dark.

Note that shelf life of the growth media changes after the addition of supplements. Complete media containing protein supplement tend to degrade faster than basal media alone.

12. Shelf life: 3 months.

13. Required supplements not supplied together with medium base: not applicable.

14. References: available on request.

Graso Zenon Sobiecki
Krąg 4A; 83-200 Starogard Gdański
www.grasobiotech.pl
tel. + 48 (58) 562 30 21

Production Department
Leśna 1, Owidz
83-211 Jabłowo