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BRILLIANT GREEN Agar

Selective and differential medium for the isolation of Salmonella species other than *S. typhi* and *S. paratyphi* from clinical specimens.

REF: BS.1/BGA01.100.0100	100 Gram	REF: BS.1/BGA01.250.0250	250 Gram
REF: BS.1/BGA01.500.0500	500 Gram		

CLINICAL SIGNIFICANCE

Brilliant Green Agar was initially developed in 1925 by Kristensen and later modified by Kauffmann in 1935. Galton and Quan demonstrated that when used in conjunction with Tetrathionate Broth, Brilliant Green Agar could be used effectively for the isolation of *Salmonella* from fecal specimens.

METHOD PRINCIPLE

The base includes the nutritive components meat and casein peptone, and yeast extract that provides the organism with nitrogen, amino acids, and vitamins. Phenol red is the pH indicator that detects changes in pH due to the fermentation of sucrose and/or lactose. The selectivity is due to the dye, brilliant green, which inhibits the majority of gram-positive and some gram negative bacteria including *Salmonella typhi* and *Shigella* species. Because of the high selectivity of the agar a heavy inoculum may be used when streaking the plate.

MEDIA COMPOSITION

Item	Formula per liter of medium
- Proteose peptone	10.00 gm
- Yeast extract	3.000 gm
- Sucrose	10.00 gm
- Lactose	10.30 gm
- Brilliant Green	0.0125 gm
- Sodium chloride	5.000 gm
- Phenol red	0.080 gm
- Agar	12.00 gm

pH 6.9±0.2 at 25 °C

PRECAUTIONS AND WARNINGS

Media to be handled by entitled and professionally educated person. Do not ingest or inhale.

Good Laboratories practices using appropriate precautions should be followed in:

- Wearing personnel protective equipment (overall, gloves, glasses,).
- Do not pipette by mouth.
- In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.
- Respect country requirement for waste disposal.
  S56: dispose of this material and its container at hazardous or special waste collection point.
  S57: use appropriate container to avoid environmental contamination.
  S61: avoid release in environment.

For further information, refer to the L.J. Medium material safety data sheet.

EQUIPMENT REQUIRED NOT PROVIDED

- Petri plates
- Sterile Test tubes
- Incubator
- Autoclave

STORAGE AND STABILITY

BioScien BRILLIANT GREEN Agar should be stored between 10-30°C in a firmlyclosed container and the prepared medium at 2-8°C. Use before expiry date on the label. On opening, product should be properly stored dry, after tightly capping the bottle in order to avoid lump development due to the hygroscopic nature of the product. Improper storage of the product may lead to lump formation. Store in a dry ventilated area protected from extremes of temperature andsources of ignition. Seal the container tightly after use. Product performance is best if used within stated expiry period.

PREPARATION

Suspend 50g in 1 liter of distilled water. Bring to the boil to dissolve completely. Sterilize by autoclaving at 121°C for 15 minutes. Cool to 50°C. Mix well and pour into sterile Petri dishes.

Procedure

1. Allow medium to reach room temperature.
2. Inoculate the specimen (fecal sample or rectal swab) in one corner of the plate and streak as to obtain isolated colonies.
3. A non-selective medium should also be inoculated to ensure recovery of low levels of gram-negative bacteria and characterize other organisms that may be present.
4. Incubate aerobically at 35°C.
5. Examine after 18-24 hours.
6. If no growth is observed re-incubate plates an additional 24 hours.

Deterioration

The color of ***BioScien*** BRILLIANT GREEN Agar is Light yellow to light pink homogeneous free flowing powder. Prepared medium is Greenish brown clear to slightly opalescent gel. If there areany physical changes for powder or signs of deterioration (shrinking, cracking, or discoloration), and contaminations for hydrated media, discard the medium.

SPECIMEN

Clinical : faeces ; Foodstuffs ; Water samples ; Pharmaceutical samples

PERFORMANCE CHARACTERISTICS

Reactions after incubation at 37°C for 18 hours

Oranism	Growth	Colony	Medium
Salmonella enteritidis ATCC® 13076	luxuriant	red	red
Salmonella typhimurium ATCC® 14028	luxuriant	red	red
Salmonella virchow NCTC 5742	luxuriant	red	red
Pseudomonas aeruginosa ATCC® 9027	None to poor	red	red
Escherichia coli ATCC® 25922	None to poor	Yellow/Green	
Escherichia coli ATCC® 11775	None to poor	Yellow/Green	
Enterobacter cloacae ATCC® 13047	None to poor	Yellow/Green	
Proteus mirabilis ATCC® 12453	None to poor	Colorless	

QUALITY CONTROL

To ensure adequate quality control, it is recommended that positive and negative control included in each run. If control values are found outside the defined range, check the system performance. If control still out of range please contact ***BioScien*** technical support.

REFERENCES

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SYMBOLS IN PRODUCT LABELLING			
IVD	For in-vitro diagnostic use		Number of <n> test in the pack
LOT	Batch Code/Lot number		Caution
REF	Catalogue Number		Do not use if package is damaged
	Temperature Limitation		Consult Instruction for use
	Expiration Date		
	Manufactured by		