

BRILLIANT GREEN SELENITE BROTH II

CAT N°: 1219

For selective enrichment of *Salmonella spp*

FORMULA IN g/l

Peptone	5.00	Dipotassium Phosphate	2.65
D-Mannitol	5.00	Monopotassium Phosphate	1.02
Yeast Extract	5.00	Brilliant Green	0.005
Sodium Selenite	4.00		

Final pH 7.4 ± 0.2 at 25°C

PREPARATION

Suspend 22.7 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Dispense into sterile containers. AVOID OVERHEATING. DO NOT AUTOCLAVE. The prepared medium should be stored at 2-8°C in the dark. It is not recommended to store longer than 8 days. Once prepared, use as soon as possible. The color is green.

The dehydrated medium should be homogeneous, free-flowing and cream with a green tint in color. If there are any physical changes, discard the medium.

Caution: This medium is toxic if swallowed, inhaled or comes into contact with the skin. Wear gloves and eye/face protection.

USES

BRILLIANT GREEN SELENITE BROTH II, like Brilliant Green Selenite Broth (Cat. 1221) is a selective enrichment for *Salmonella spp*, generally following a pre-enrichment step.

This medium is not as inhibitory since it has neither Sodium taurocholate nor Sodium sulfapyridine. The Gelatin peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Mannitol is the fermentable carbohydrate providing carbon and energy. Sodium selenite inhibits Gram-positive bacteria and most Gram-negative bacteria except for *Salmonella spp*. The Potassium phosphates act as a buffer system.

After the pre-enrichment of the sample in a suitable medium, pass 10 ml to Brilliant Green Selenite Broth II. Incubate at 35 ± 2°C for 48 hours. After 24 hours subculture to plated media such as Brilliant Green Agar (Cat. 1078), Desoxycholate Citrate Agar (Cat. 1067) and Hektoen Enteric Agar (Cat. 1030) to obtain isolated colonies. Incubate these plates at 35 ± 2°C for 48 hours.

Repeat the subculture to selective plated media after 48 hours of incubation of the enrichment broth. Observe the plated media after 24 and 48 hours, noting the appearance and color of colonies on each medium.

MICROBIOLOGICAL TEST

The following results were obtained in the performance of the medium from type cultures after incubation at a temperature of 35 ± 2°C and observed after 6 and 24 hours.

Microorganisms	Growth		Concentration of the inoculum
	6 hours	24 hours	
<i>Salmonella typhimurium</i> ATCC 14028	>70%	>95%	approx. 1%

Escherichia coli ATCC 25928

<30%

<5%

approx. 99%

After 24 hours subculture to the following plated media to obtain isolated colonies. Incubate these plates at $35 \pm 2^\circ\text{C}$ for 48 hours.

	Brilliant Green Agar	Desoxycholate Citrate Agar	Hektoen Enteric Agar
<i>Salmonella</i>	Pink to red with a red halo	Colorless to pale pink at 18 hours. When the incubation time increases, they grow larger, opaque with gray to black center	Blue-green. Centers may or not be black
<i>Shigella</i>	Null	Initially colorless, then pale pink	Greenish, moist, convex

BIBLIOGRAPHY

International standard. ISO 3565. (1975).

Meal and meat products-detection of salmonella (reference method). ISO 3565 (1975).

STORAGE

Once opened keep powdered medium closed to avoid hydration.

