

PRODUCT INFORMATION

Bismuth Sulfite Agar

Cat. No. B02-108

DESCRIPTION

Bismuth Sulfite Agar is used for the isolation of *Salmonella spp.* A modification by Wilson and Blair, Bismuth Sulfite Agar uses Bismuth and Sodium Sulfite for the selective isolation and growth of typhoid and non-typhoid *Salmonella*. This medium is used particularly for the isolation of *Salmonella typhi* from clinical and environmental specimens including food, feces, urine, and sewage. Bismuth and brilliant green dye act as inhibitors to most enteric bacteria and Gram-positive bacteria but allow *Salmonella typhi* to produce black colonies surrounded by a metallic sheen.

FORMULA (g/L)

Enzymatic Digest of Casein	5.0 g	Peptic Digest of Animal Tissue	5.0 g
Beef Extract	5.0 g	Dextrose	5.0 g
Bismuth Sulfite Indicator	8.00 g	Disodium Phosphate	4.0 g
Ferrous Sulfate	0.03 g	Brilliant Green	0.025 g
Agar	20.0 g		

Final pH: 7.5 ± 0.2 at 25 °C

*Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Mix 52 grams of the medium in one liter of purified water until evenly dispersed. Heat with repeated stirring and boil for one minute to dissolve completely. Allow to cool to 45-50 °C. THIS MEDIUM SHOULD NOT BE AUTOCLAVED. Dispense into sterile petri dishes and allow to solidify.

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogenous, free flowing with lumps and beige to greenish-beige.
2. Visually the prepared medium is green-yellow and opaque.
3. The prepared enriched medium is canary yellow and opaque.
4. Expected cultural response after 40-48 hours at 35 °C.

ORGANISM	RESULT
<i>Escherichia coli</i> ATCC 25922	Partial inhibition – Brown to green colony
<i>Enterococcus faecalis</i> ATCC 29212	Inhibited
<i>Salmonella typhi</i> ATCC 19430	Good Growth – Black w/ metallic sheen colony
<i>Salmonella typhimurium</i> ATCC 14028	Good Growth – Black w/ metallic sheen colony

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.