

Bismuth Sulfite Agar

Product No.	Product Category	Specification
HCM059	Dehydrated Culture Medium	500g/bottle

Intended Use

For selective isolation of *Salmonella* spp, especially for *Salmonella typhi*.

Principle and Interpretation

Peptone, beef extract powder provides carbon, nitrogen, vitamins and minerals; glucose to provide energy; bismuth sulfite indicator suppresses gram-positive bacteria and coliform bacteria, but does not affect the growth of salmonella; agar as culture medium coagulant.

Formulation

Ingredients	/liter
Peptone	10.0g
Beef extract	5.0g
Dextrose	5.0g
FeSO ₄ (anhydrous)	0.3g
Na ₂ HPO ₄ (anhydrous)	4.0 g
Bismuth sulfite (indicator)	8.0 g
Brilliant green	0.025 g
Agar	15.0 g
pH7.7±0.2 at 25°C	

Preparation

Suspend 47.3g in 1L of distilled or deionized water. Heat with frequent agitation and boil to completely dissolve the powder. Pour into sterile Petri dishes.

Quality Control

Cultural characteristics observed after incubation at 35-37°C for 40~48 hours

Quality control strains	Growth	Typical reaction
<i>Salmonella enterica</i> subsp. <i>Enterica</i> ATCC14028	Good	Black or gray green colonies, may have a metallic luster
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhi</i> CMCC(B)50071	Good	Black colonies with metallic luster

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Technical Data Sheet



<i>Escherichia coli</i> ATCC25922	Marked Inhibition	-
<i>Enterococcus faecalis</i> ATCC29212	Marked Inhibition	-

Storage and Shelf Life

2-30°C, Keep container tightly closed, avoid direct sunlight.

Use before expiry date on the label.

Precautions

1. When weighing the dehydrated medium, please wear masks to avoid causing respiratory system discomfort
2. Keep container tightly closed after using to prevent clumping.

Waste Disposal

Microbiological contamination was disposed by autoclaving at 121°C for 30 minutes.

Revision

On June 14, 2024

References

AOAC (2005): Official Method 467.25 Salmonella in Foods. Preparation of Culture Media and Reagents.

APHA (2018): Part 9260: Detection of pathogenic bacteria. Standard Methods for the Examination of Water. 23rd ed.

ISO International Standardization Organization. EN ISO 6579-1:2027/ Amd1:2020.

FDA-BAM (2018): Media Index for BAM - BAM Media M19: Bismuth Sulfite Agar (Wilson and Blair). Food and Drug Administration - Bacteriological Analytical Manual.

United States Pharmacopeial Convention. (2008): The United States Pharmacopeia 31/National Formulation 26. Chapter <61> Microbial limit test.

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