

## Bismuth Sulfite Agar (BS)

**Product No.** CM207

### Intended Use

Used for isolating *Salmonella spp.* from food. (GB, SN, FDA BAM)

**Specification** 250 g

<b>Ingredients</b>	<b>(g/L)</b>
Peptone	10.0
Beef Extract	5.0
Dextrose	5.0
Disodium Phosphate	4.0
Ferrous Sulfate	0.3
Sodium Sulfite	6.0
Bismuth Ammonium Citrate	2.0
Brilliant Green	0.025
Agar	18.0
(pH 7.5 ± 0.2)	

### Additional Reagents

No

### Principle and Interpretation

In Bismuth Sulfite Agar, beef extract and peptone provide nitrogen, vitamins and minerals. Dextrose is an energy source. Disodium phosphate is a buffering agent. Bismuth sulfite and brilliant green are complementary in inhibiting gram-positive bacteria and members of the *coliform* group, while allowing *Salmonella* to grow luxuriantly. Ferrous sulfate is included for detection of H<sub>2</sub>S production. When H<sub>2</sub>S is present, the iron in the formula is precipitated, giving positive cultures the characteristic brown to black color with metallic sheen. Agar is the solidifying agent.

### Directions

Suspend 50.4 g of the powder in 1 L of distilled water. Mix thoroughly. Heat with frequent agitation and boil for 1-2 minute to completely dissolve the powder. DO NOT AUTOCLAVE. Cool to approximately 48°C ± 2°C and pour into sterile Petri dishes. Use the medium after the

day it is prepared.

### Precautions

No

### Quality Control

Microorganisms	Inoculum (CFU)	Reference Medium	Method	Incubation	Growth (Productivity Ratio : PR)
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhi</i> CMCC(B) 50071	50-250	TSA	quantitative	36°C±1°C 40h-48h	PR≥0.5, colonies are black, with a metallic sheen
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhimurium</i> ATCC 14028	50-250	TSA			PR≥0.5, colonies are black or greyish-green, with a metallic sheen
<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar <i>Typhimurium</i> CICC 25045 [CMCC(B) 50976]					
<i>Escherichia coli</i> ATCC 25922	-	-	semiquantitative	G≤1	
<i>Escherichia coli</i> CICC 25012 [CMCC(B) 43201]					
Enterococcus faecalis ATCC 29212	-	-	-	-	
<i>Enterococcus faecalis</i> CICC 25019 [CMCC(B) 32482]					

### Storage Conditions

Keep container tightly closed and store in a cool dry place.

### Shelf Life

3 years.

### Related Products

Product No.	Product Name	Specification
CM207-01	Bismuth Sulfite Agar (BS)	1000 g
CM207-07	Bismuth Sulfite Agar (BS)	100 mLx10
PB010A	Bismuth Sulfite Agar (BS)	20 Plates

*For laboratory use in industry or R&D purpose. Not for drug, household or other uses.*