

B115		BISMUTH SULPHITE AGAR (BS)	
Formula			
Ingredients :		gms/lit.	
ISO 6579-1 Specification -Bismuth Sulphite Agar		B115 - Bismuth Sulphite Agar	
Ingredients	g / L	Ingredients	g / L
Enzymatic digest of animal tissues		Peptic digest of animal tissue	10.00
10.000		Meat Extract B #	5.00
Meat Extract	5.000		
Dextrose	5.000	Dextrose	5.00
Disodium hydrogen phosphate, anhydrous	4.000	Disodium phosphate	4.00
Ferrous sulphate, anhydrous	0.300	Ferrous Sulphate	0.30
Bismuth sulphate indicator	8.0000	Bismuth Sulphite Indicator	8.00
Brilliant green	0.025	Brilliant Green	0.025
Agar	20.000		
Final pH (at 25°C)	7.7±0.2	Agar	20.00
		Final pH (at 25°C)	7.7±0.2
		#- Equivalent to Beef extract	
Final pH (at 25°C) :		7.7 ± 0.2	
Directions :			
Suspend 52.33 grams in 1000 ml purified/distilled water. Heat to boiling to dissolve the medium completely. DO NOT STERILIZE IN AUTOCLAVE or by fractional sterilization since overheating may destroy the selectivity of the medium. The sensitivity of the medium depends largely upon uniform dispersion of precipitated bismuth sulphite in the final gel, which should be dispersed before pouring into sterile Petri plates.			
Principle :			
In Bismuth Sulfite Agar, Peptone and Meat Extract B serve as sources as carbon, nitrogen, long chain amino acids, vitamins and essential growth factors. Dextrose is the carbon source. Disodium phosphate maintains the osmotic equilibrium. Bismuth sulphite indicator along with brilliant green inhibits the intestinal gram-positive and gram-negative bacteria. Ferrous sulphate aids in detection of hydrogen sulphide production. When H ₂ S is present, the iron in the formula is precipitated, giving positive cultures the characteristic brown to black colour with metallic sheen. Agar is a solidifying agent.			
QC Tests – (I)Dehydrated Medium			
	Colour :	Light yellow to greenish yellow	
	Appearance :	Homogeneous Free Flowing powder	
(II)Rehydrated medium			
	pH (post autoclaving/heating) :	7.7 ± 0.2	
	Colour (post autoclaving/heating) :	Greenish yellow	
	Clarity (post autoclaving/heating) :	Opalescent gel with flocculent precipitate.	
(III)Q.C. Test Microbiological			
	Cultural characteristics observed after 40 –48 hrs at 35-37°C.		
	MICROORGANISM (ATCC)	GROWTH	COLOUR OF COLONY
	Salmonella Typhimurium ATCC 14028	Good	Brown, grey or black colonies usually with a metallic sheen after 24 hours becoming uniformly black after 48 hours

TECHNICAL SHEET

	Salmonella Enteritidis ATCC 13076	Good	Brown, grey or black colonies usually with a metallic sheen after 24 hours becoming uniformly black after 48 hours		
	Escherichia coli ATCC 8739	growth or partial inhibition	Dull green or brown colonies without metallic sheen		
	Escherichia coli ATCC 25922	growth or partial inhibition	Dull green or brown colonies without metallic sheen		
	Enterococcus faecalis ATCC 19433	Inhibited			
	Salmonella Typhi ATCC 6539	Good	Brown, grey or black colonies usually with a metallic sheen after 24 hours becoming uniformly black after 48 hours		
Precautions :	1. For Laboratory Use.				
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.				
	3. HARMFUL. May cause sensitization by inhalation. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed.				
Limitations :	1. DO NOT AUTOCLAVE OR OVERHEAT THE MEDIUM, as it destroys the selectivity of the medium				
	2. S.Typhi and S.Arizonae exhibit typical brown colonies , with or without metallic sheen				
	3. This medium is highly selective and must be used in parallel with less selective media for isolation				
	4. With certain Salmonella species, a typical black colony with metallic sheen is observed near heavy inoculation and isolated colonies may show green colonies.				
	5. Individual organisms differ in their growth requirement and may show variable growth patterns on the medium.				
Use :	Recommended for selective isolation and enumeration of Salmonella species from food samples. The composition and performance criteria of this medium are as per specifications laid down in ISO 6579-1:2017.				
Storage :	Dehydrated medium-below 30°C Prepared medium- Between 2 to 8°C. But not for more than two days as after which dye oxidizes to give green medium that could be inhibitory to some Salmonellae. Current references suggest that the prepared medium should be aged for one day before use.				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
	B115	52.33g/L	9.554L	7.7 ± 0.2	NIL

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related BIOMARKLABORATORIES publications.

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