

TECHNICAL SHEET

B1420	BLOOD AGAR BASE NO.2		
Formula			
Ingredients :		gms/lit.	
Peptone		15.00	
Liver extract		2.50	
Yeast extract		5.00	
Sodium chloride		5.00	
Agar		13.00	
Final pH (at 25°C) : 7.4 ± 0.1			
Directions :			
Suspend 40.5 gms. in 1000 ml. distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121° C) for 15 minutes. Cool to 45 – 50° C and aseptically add 5-7 % sterile defibrinated blood.			
Principle :			
Blood Agar Base formulations have been prepared using specially selected raw materials to support good growth of a wide variety of fastidious microorganisms. Proteose Peptone is the nitrogen source for Blood Agar Base No. 2 while Yeast Extract and Liver Digest provide essential carbon, vitamin, nitrogen and amino acids sources. It contains Sodium Chloride to maintain osmotic balance and Agar as a solidifying agent. Blood Agar Bases are relatively free of reducing sugars, which have been reported to adversely influence the hemolytic reactions of beta-hemolytic streptococci.			
Supplementation with blood (5-10%) provides additional growth factors for fastidious microorganisms and is the basis for determining hemolytic reactions. Hemolytic patterns may vary with the source of animal blood or type of base medium used. Chocolate agar for isolating Haemophilus and Neisseria species can be prepared from blood agar base No. 2 by supplementing the medium with 10% sterile defibrinated blood (chocolatized).			
QC Tests - (I)Dehydrated Medium			
	Colour :	Cream to yellow	
	Appearance :	Homogeneous Free Flowing powder	
(II)Rehydrated medium			
	pH (post autoclaving/heating) :	7.4 ± 0.1	
	Colour (post autoclaving/heating) :	A) Basal medium : Light amber to yellow B) After addition of 7% sterile defibrinated blood : Cherry red.	
	Clarity (post autoclaving/heating) :	A : Clear to slightly opalescent B : Opaque	
(III)Q.C. Test Microbiological			
Cultural characteristics observed after 18-48 hrs. at 35-37°C.			
	MICROORGANISM (ATCC)	GROWTH	HAEMOLYSIS
	Neisseria meningitidis (13090)	Good to luxuriant	none
	Staphylococcus pneumoniae (6303)	Good to luxuriant	alpha
	Streptococcus pyogenes (19615)	Good to luxuriant	beta
	Staphylococcus aureus (25923)	Good to luxuriant	-
	E.coli (25922)	Good	-

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Precautions :	<p>1. For Laboratory Use.</p> <p>2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.</p>				
Limitations :	<p>1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.</p> <p>2. Blood Agar Base media are intended for use with blood supplementation. Although certain diagnostic tests may be performed directly on this medium, biochemical and, if indicated, immunological testing using pure cultures are recommended for complete identification. Consult appropriate references for further information.</p> <p>3. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.</p> <p>4. Hemolytic reactions of some strains of group D streptococci have been shown to be affected by differences in animal blood. Such strains are beta – hemolytic on horse, human and rabbit blood agar and alpha – hemolytic on sheep blood agar.</p> <p>5. Colonies of Haemophilus haemolyticus are beta – hemolytic on horse and rabbit blood agar and must be distinguished from colonies of beta – hemolytic streptococci using other criteria. The use of sheep blood has been suggested to obviate this problem since sheep blood is deficient in pyridine nucleotides and does not support growth of H. haemolyticus.</p> <p>5. Atmosphere of incubation has been shown to influence hemolytic reactions of beta – hemolytic streptococci. For optimal performance, incubated blood agar base media under increased CO₂ or anaerobic conditions.</p>				
Use:	After addition of blood medium permits maximum recovery of many fastidious pathogenic microorganisms without interfering with their haemolytic reactions. Recommended by ISO.				
Storage:	Dehydrated medium-below 30°C Prepared medium- Between 2 to 8°C.				
Packing:	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B1420	40.5g/l	12.345 L	7.4 ± 0.1	5-7% sterile defibrinated blood.	121°C / 15 minutes