B148	COLUMBIA BLOOD AGAR BASE (W/1% AGAR)

Formula

Ingredients :	gms/lit.
Peptone, special	23.00
Corn starch	1.00
Sodium chloride	5.00
Agar	10.00

Final pH (at 25°C) : 7.3 ± 0.2

Directions :

Suspend 39 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C before adding heat sensitive compounds.

For Blood Agar: Add 5% v/v sterile defibrinated sheep blood to sterile cool base.

For Chocolate Agar: Add 10% v/v sterile defibrinated sheep blood to sterile cool base. Heat to 80°C for 10 minutes with constant agitation. The medium can be made selective by adding different antimicrobials to sterile base.

For Brucella species: Add rehydrated contents of 1 vial of Brucella Selective Supplement (BF012) to 500 ml sterile molten base.

For Campylobacter species: Add rehydrated contents of 1 vial of Campylobacter Supplement- I (Blaser-Wang) (BF013) or Campylobacter Supplement- II, (Butzler) (BF014) or Campylobacter Supplement- III (Skirrow) (BF015) or Campylobacter Selective Supplement (BF041) or Campylobacter Supplement- VI (Butzler) (BF042) to 500 ml sterile molten base along with rehydrated contents of 1 vial of Campylobacter Growth Supplement (BF016).

For Gardnerella species: Add rehydrated contents of 1 vial of G.Vaginalis Selective Supplement (BF040) to 500 ml sterile molten base.

For Cocci: Add rehydrated contents of 1 vial of Staph-Strepto Supplement (BF148) or Strepto Supplement (BF017) or Streptococcus Selective Supplement (BF043) to 500 ml sterile molten base.

Principle :

Columbia Blood Agar Base uses specially selected raw materials to support good growth of fastidious microorganisms. Peptone provides nitrogen, carbon, amino acids and vitamins. Corn starch, increases growth of Neisseria and enhances the hemolytic reactions of some streptococci. Agar is a solidifying agent. Sodium Chloride maintains the osmotic balance of the medium.

Blood agar bases are relatively free of reducing sugars, which have been reported to adversely influence the hemolytic reactions of B-hemolytic streptococci. Supplementation with blood (5-10%) provides additional growth factors for fastidious microorganisms and aids in determining hemolytic reactions. Hemolytic patterns may vary with the source of animal blood and the type of basal medium used.

QC Tests – (I)Dehydrated Medium				
	Colour :	Cream to light yellow		
	Appearance :	Homogeneous Free Flowing powder		
(II)Rehydrated medium				
	pH (post autoclaving/heating) :	7.3 ± 0.2		
	Colour (post autoclaving/heating) :	A) Basal medium : light yellow to light amber B) (After addition of 5% sterile defibrinated blood): Cherry red		
	Clarity (post autoclaving/heating) :	A) Clear to slightly opalescent gel. B) Opaque		
(III)Q.C. Test Microbiological				
	Cultural characteristics observed after 48 hrs. at 35-37°C.			
	MICROORGANISM (ATCC)	GROWTH w/5% BLOOD	HAEMOLYSIS	
	Neisseria meningitidis (13090)	Luxuriant	None	
	Staphylococcus aureus (25923)	Luxuriant	Beta or gamma	

	Staphylococcus aureus (6538)	Luxuriant	Beta or gamma	
	Staphylococcus epidermidis (12228)	Luxuriant	Gamma	
	Streptococcus pneumoniae (6303)	Luxuriant	Alpha	
	Streptococcus pyogenes (19615)	Luxuriant	Beta	

Precautions :	1. For Laboratory Use.
	2. Follow proper, established laboratory procedures in handling and disposing of infectious materials.
Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.
Use :	As a basal medium used for isolation and cultivation of fastidious bacteria.
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
B148	39g/l	12.82L	7.3 ± 0.2	5% v/v sterile defibrinated sheep blood or as per requirement	121^0C / 15 minutes