

TECHNICAL SHEET

B1049	GC AGAR BASE
Formula	
Ingredients:	gms/lit.
Peptone special	15.00
Corn starch	1.00
Dipotassium hydrogen phosphate	4.00
Potassium dihydrogen phosphate	1.00
Sodium chloride	5.00
Agar	10.00
Final pH (at 25°C) : 7.2 ± 0.2	
Directions:	
Suspend 7.2 grams in 100 ml purified / distilled water, to make a double strength base. 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 and aseptically add separately prepared Hemoglobin (BF036) (100 ml sterile 2% solution) and GC Supplement w/ Antibiotics (BF058). Mix well and pour into sterile Petri plates. To increase the selectivity of medium antibiotic supplements such as V.C.N. Supplement (BF059), V.C.N.T. Supplement (BF060), Linco T Supplement (BF061) or Vanco T Supplement (BF062) may be added. To enhance the nutritional properties of medium, Vitamino Growth Supplement (BF037) or Yeast Auto lysate Supplement (BF038) may be added. For Chocolate Blood Agar, prepare singlestrength medium using 3.6 grams in 100 ml of distilled water. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes and add 5% v/v defibrinated blood. Mix well and heat at 80°C for 10 minutes.	
Principle :	
Peptone special provides nitrogen, vitamins and amino acids in GC Medium Base. Corn Starch absorbs any toxic metabolites that are produced. Potassium Phosphate, dibasic and monobasic buffer the medium. Sodium Chloride maintains osmotic balance. Agar is a solidifying agent. Chocolate Agar is prepared from GC Medium Base with the addition of 2% Hemoglobin. Hemoglobin provides hemin (X factor) required for growth of Haemophilus and enhanced growth of Neisseria. The other supplement provides V factor i.e. NAD (Nicotinamide Adenine Dinucleotide) for Haemophilus species and amino acids, coenzymes, ferric ions etc. improve the growth of pathogenic Neisseria.	
QC Tests – (I) Dehydrated Medium	
Colour :	Cream to yellow
Appearance :	Homogeneous Free Flowing powder
(II) Rehydrated medium	
pH (post autoclaving/heating) :	7.2 ± 0.2
Colour (post autoclaving/heating) :	A) Basal medium: Light yellow B) (After addition of haemoglobin) : Chocolate brown
Clarity (post autoclaving/heating) :	A) Clear to slightly opalescent B) Opaque
(III) Q.C. Test Microbiological	
Cultural characteristics observed in presence of 5-10% Carbon dioxide (CO ₂) and 70% humidity with added sterile 2% Haemoglobin (BF036) and GC Supplement with antibiotics (BF058), after an incubation at 35-37°C for 40-48 hours.	
MICROORGANISM (ATCC)	GROWTH
Haemophilus influenzae(19418)	Good-luxuriant
Neisseria meningitides (13090)	Good-luxuriant (with added antibiotic supplements)
Neisseria gonorrhoeae (19424)	Good-luxuriant (with added antibiotic supplements)
Streptococcus pneumoniae (6303)	Good-luxuriant
Streptococcus pyogenes (19615)	Good-luxuriant

Refer disclaimer Overleaf

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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. 2. GC Medium Base is intended for use with 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. 3. Improper specimen collection, environment, temperature, CO ₂ level, moisture and pH can adversely affect the growth and viability of the organism. 4. Inactivation or deterioration of antibiotics in Thayer – Martin or Modified Thayer – Martin may allow growth of contaminants. 5. GC Medium Base has sufficient buffering capacity to offset the very low pH of the small amount of Supplement VX added. The pH of some media has to be adjusted with 1% NaOH after the addition of Supplement VX.				
Use :	With added blood or hemoglobin and other supplements it is used for selective isolation and cultivation of Gonococci.				
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
B1049	72.0 g/l	6.944L	7.2+0.2	Hemoglobin (BF036) and GC Supplement with antibiotics (BF058)	121°C / 15 minutes

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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