

WILKINS CHALGREN ANAEROBIC AGAR
TM 915

For isolation, cultivation and susceptibility testing of anaerobes by agar dilution method

Composition

Ingredients	Gms/Ltr.
Agar	15.00
Casein enzymatic hydrolysate	10.00
Peptic digest of animal tissue	10.00
Sodium chloride	5.00
Yeast extract	5.00
Sodium pyruvate	1.00
Dextrose	1.00
L-Arginine	1.00
Hemin	0.005
Vitamin K	0.0005

* Dehydrated powder, hygroscopic in nature, store in a dry place in tightly- sealed containers 25°C and protected from direct Sunlight.

Instructions for use

Dissolve 43gms in 1000ml distilled water. Gently heat to boiling with gentle swirling and dissolve the medium completely. Sterilize by autoclaving at 15 psi (at 121°C) for 15 minutes. Cool to 45- 50°C and aseptically add antibiotics to be tested. Mix gently. Add 2 vials each of NON SPORE ANAEROBIC SUPPLEMENT (TS 055) or G.N. SPORE ANAEROBIC SUPPLEMENT (TS 056) as desired to the sterile molten medium before pouring into sterile Petri plates.

Appearance: Medium amber colour, very slightly opalescent gel

pH (at 25°C): 7.1 ± 0.2

Principle

WILKINS CHALGREN ANAEROBIC AGAR is used for isolation, cultivation and susceptibility testing of anaerobes by agar dilution method. Wilkins-Chalgren Agar was designed by 'Wilkins' and 'Chalgren' for use in determining minimal inhibitory concentration (MIC's) of antibiotics for anaerobic bacteria by the agar dilution procedure. This medium was selected because it does not require the addition of blood to support satisfactory growth of most anaerobes. Anaerobic bacteria cause a variety of human infections including endocarditis, meningitis, wound infections following bowel surgery or trauma, and bacteremia. This medium contains Casein enzymatic hydrolysate and Peptic digest of animal tissue provide nitrogen, amino acids, and minerals. Yeast Extract is added to provide vitamins and other growth factors, including purines and pyrimidines. Sodium chloride maintains the osmotic balance of the medium. Dextrose is a carbon source. L-Arginine contributes to growth of *Eubacterium lentum*. Sodium pyruvate provides an energy source for *Veillonella* spp. and degrades hydrogen peroxide. Hemin (X Factor) and Vitamin K are essential for growth of a number of species of anaerobes. Agar is the solidifying agent.

Interpretation

Cultural characteristics observed after inoculating (10^3 CFU/ml), on incubation at 35 - 37°C for 48 hours.

Microorganisms	ATCC	Inoculum	Growth
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PRODUCT DATA SHEET

		(CFU/ml)	
<i>Clostridium perfringens</i>	12924	10 ³	Good
<i>Clostridium sporogenes</i>	19404	10 ³	Good
<i>Bacteroides fragilis</i>	25285	10 ³	Good
<i>Escherichia coli</i>	25922	10 ³	Inhibited

References

1. Koneman E. W., Allen S. D., Janda W. M., Schreckenberger P. C., Winn W. C. Jr., Colour Atlas and Textbook of Diagnostic Microbiology, 4th Ed., J. B. Lippincott Company. (1992).
2. Murray P. R., Baron E. J., Jorgensen J. H., Pfaller M. A., Tenover F. C., Tenover F. C., (Eds.), 8th Ed., Manual of Clinical Microbiology, ASM, Washington, D.C. (2003).
3. Wilkins T. D. and Chalgren S., Antimicrob. Agents Chemother., 10 : 926. (1976).