W1761 Wilkins Chalgren Anaerobic Agar

Used for the isolation of anaerobic bacteria. and also for the susceptibility testing of anaerobic bacteria by the agar dilution method.

Composition:

Ingredients	Grams/Litre
Casein enzymic hydrolysate	10.0
Peptic digest of animal tissue	10.0
Yeast extract	5.0
Dextrose	1.0
Sodium chloride	5.0
L-Arginine	1.0
Sodium pyruvate	1.0
Hemin	0.005
Menadione	0.0005
Agar	10.0

Final pH 7.1 +/- 0.2 at 25°C

Store prepared media below 8 °C, protected from direct light. Store dehydrated powder in a dry place in tightly-sealed containers at 2-25 °C.

Directions:
Suspend 43 g of Wilkins Chalgren Anaerobic Agar in 1000 ml of distilled water. Heat to boiling to dissolve the medium completely. Dispense and sterilize by autoclaving at 15 lbs. pressure (121°C) for 15 minutes. Cool to 50°C before adding antibiotics to be tested. Mix gently and pour into sterile petri plates.
For the cultivation of anaerobes add 2 vial of Non-Spore Anaerobic Supplement or 2 vials of G.N. Spore Anaerobic Supplement as desired into the sterile molten medium before pouring into sterile petri plates.

Principle and Interpretation:
Wilkins Chalgren Anaerobic Broth is designed for determining the minimal inhibitory concentrations (MICs) of the antibiotics for anaerobic bacteria. Growth of anaerobic bacteria in this medium is good. The advantage of this medium is that it does not need blood as supplement. Casein enzymic hydrolysate, Peptic digest of animal tissue and Yeast extract provide nitrogenous and carbonaceous compounds. Yeast extract provides vitamins and other essential growth factors. Arginine is an amino acid source especially for *Eubacterium lentum*. Pyruvate is the energy source for asacherolytic cocci such as Veionella. Hemin is important for growth of Bacterioides and menadione for for the growth of *Prevotella melaninogenica* are necessary for growth of bacteria. Agar is the solidifying agents.

Cultural characteristics after 48 hours at 35°C.

Organisms (ATCC)	Recovery
Bacteroides fragilis (25285)	+++
Bacteroides melaninogenicus (15930)	+++
Clostridium perfringens (12924)	+++
Escherichia coli (25922)	-

References:
1. T.D. Wilkins, et al., Antimicrob. Agents Chemother. 10, 926 (1976)
2. M. Rogosa, J. Bacteriol. 87, 162 (1964)
3. G. Quinto, et al., Am. J. Med. Technol. 30, 381 (1964).
4. R.J. Gibbons, et al., J. Bacteriol. 80, 164 (1960)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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