

Wilkins Chalgren Medium

For susceptibility testing as well as for the isolation and culture of anaerobic bacteria in general from clinical samples

Product Description

Name :	Wilkins Chalgren Medium			
Catalog Number :	A2WX90, 500 g			
Formula in g/l :	Dextrose	1	Bacteriological agar	15
	Bacteriological peptone	10	Hemin	0,005
	L-Arginine	1	Sodium chloride	5
	Sodium pyruvate	1	Tryptone	10
	Vitamin K1	0,0005	Yeast extract	5

Typical formula g/L * Adjusted and/or supplemented as required to meet performance criteria.

Storage 2-25°C.

Directions for use

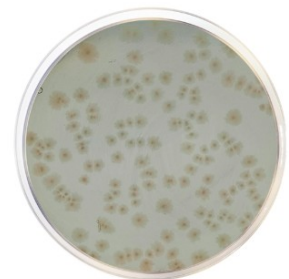
Practical information

Applications

Selective isolation
Selective isolation

Categories

Clostridium
Anaerobes



Industry: Clinical

Principles and uses

Wilkins Chalgren Medium was designed for use in the determination of minimum inhibitory concentrations (MIC) of antibiotics for anaerobic bacteria by the agar dilution method. It is also recommended for the isolation of anaerobic organisms from clinical specimens. It has the same performance in Petri dishes as in tubes.

It has the advantage over other media in that it does not need the addition of blood to obtain the satisfactory growth of clinically important anaerobic bacteria.

Tryptone and Bacteriological peptone provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is source of vitamins, particularly the B-group and other growing factors to cultivate *Bacteroides melaninogenicus* and *Peptostreptococcus anaerobius*. Dextrose is the fermentable carbohydrate providing carbon and energy. L-Arginine provides amino acids for the growth of *Eubacterium lentum*. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Sodium pyruvate acts as an energy source for asaccharolytic cocci such as *Veillonella* and to catalyze and degrade traces of hydrogen peroxide which affects the metabolism of anaerobes. Haemin and vitamin K1 are growth factors. Haemin is essential for the growth of *Bacteroides* species. Bacteriological agar is the solidifying agent.

FT-A2WX90

Preparation

Suspend 48 grams of medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Sterilize in autoclave at 121 °C for 15 minutes. Cool to 45-50 °C, mix well and dispense into plates

Instructions for use

For antibiotic susceptibility testing:

- Dispense the medium in sterile Petri dishes.
- Adjust the density of the microorganism suspension to 0,5 Mac Farland. A denser inoculum will produce smaller zones of inhibition and a smaller inoculum will give rise to the opposite effect.
- The suspension should be used between 15 and 60 minutes from its preparation.
- Dip a sterile cotton swab in the suspension.
- To avoid over-inoculation of Gram-negative bacteria, remove the excess liquid by pressing and turning the swab against the inside of the tube.
- For Gram-positive bacteria, do not press or turn the swab against the inside of the tube.
- Apply the strip before 15 minutes have passed since the inoculation.
- Incubate at a temperature of 35±2 °C for 24-48 hours in an anaerobic atmosphere.
- The results are taken from the edge where complete inhibition is observed with the plate about 30 cm from the eye. That point will determine the CMI.

Quality control

<u>Solubility</u>	<u>Appareance</u>	<u>Color of the dehydrated medium</u>	<u>Color of the prepared medium</u>	<u>Final pH (25°C)</u>
w/o rests	Fine powder	Beige	Amber	7,1±0,2

Microbiological test

Incubation conditions: (35±2 °C / 24-48 h / anaerobic atmosphere).

Microorganisms		Growth
<i>Clostridium perfringens</i>	ATCC 13124	Good
<i>Bacteroides fragilis</i>	ATCC 25285	Good

References

- Brown W.J. and Waatti P.E., Antimicrob. Agents Chemother., 17. 629-635 (1980)
Sutter V.L., et al. Microb. Agents Chemother, 16. 495-502 (1979)
Wilkins T.D. et al., Antimicrob. Agents. Chemother., 10. 926-928 (1976)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.

For any information, please ask : Uptima / Interchim; Hotline : +33(0)4 70 03 73 06

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