

# Wilkins Chalgren Medium II

Cat. 1568

For the general development and microbial sensitivity test of anaerobic agents from clinical samples.

## Practical information

Applications	Categories
Growth	Anaerobes
Antimicrobial susceptibility tests	Anaerobes

Industry: Clinical

## Principles and uses

Wilkins Chalgren Medium II is used in studies of antimicrobial susceptibilities with both the broth and the agar, standardizing by using identical nutrient formulation media.

This medium is also recommended to grow anaerobic microorganisms. 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.

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

## Formula in g/L

Dextrose	1	Bacteriological peptone	10
Hemin	0,005	L-Arginine	1
Sodium chloride	5	Sodium pyruvate	1
Tryptone	10	Vitamin K1	0,005
Yeast extract	5		

## Preparation

Suspend 33 grams of the 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 and aseptically add the desired antibiotics.

## Instructions for use

Inoculate and incubate at a temperature of 35±2 °C and observe after 24-48 hours.

## Quality control

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

## Microbiological test

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

Microorganisms	Specification
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Clostridium perfringens ATCC 13124  
Bacteroides fragilis ATCC 25285

Good growth  
Good growth

## Storage

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Temp. Min.:2 °C  
Temp. Max.:25 °C

## Bibliography

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Hall, Jean F. (1971) J. Inst. Brewing 77, 513-516.