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# Product Name : Ornithine Decarboxylase Test

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Complete kit to evidence ornithine decarboxylation for enterobacteria identification.

## CONTENT OF THE PACKAGES

Ornithine Decarboxylase Test ..... 30 tubes  
1 Instruction sheet

## ITEMS NECESSARY NOT INCLUDED IN THE PACKAGES

- Physiological Solution (MB-20095)
- Vaseline Oil (MB-80278)

## DESCRIPTION

Ornithine Decarboxylase Test is a rapid test to evidence ornithine decarboxylation to be used for enterobacteria identification.

## PRINCIPLE OF THE METHOD

The ornithine decarboxylase is an enzyme that attacks the carboxylic group of the ornithine, with formation of amine putrescine. The sugar contained in the medium is fermented by all the enterobacteria with consequent initial color change of indicator system from purple to yellow. The acid medium supports the amino acid decarboxylation with formation of putrescine. The amines production alkalize the medium and induces a new indicator color change from yellow to purple. The negative reaction is shown by the appearance of a yellow color in the tube, while the positive reaction is shown by a purple color.

## USE

- Take the package from the fridge, take one or more tubes and leave it for a few minutes on the bench until it has reached room temperature.
- Add 0.3 mL of Physiological Solution (MB-20095) to the tubes.
- With a sterile loop suspend in the culture medium of the tube a well isolated bacterial colony of 24 hours incubation chosen from the culture medium.
- Add 2-3 drops of Vaseline Oil (MB-80278).
- Put the top to the tubes and incubate them at  $36 \pm 1$  °C for 4 hours till a maximum of 24 hours.

## INTERPRETATION OF THE RESULTS

Interpret the results according to the table;

Color of the medium	Ornithine Decarboxylase Test
Purple	Positive
Yellow	Negative

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## QUALITY CONTROL

Each batch of Ornithine Decarboxylase Test is submitted to the quality control using the following microorganisms :

Microorganism		Ornithine Decarboxylation
<i>Escherichia coli</i>	ATCC 25922	+
<i>Vibrio parahaemolyticus</i>	ATCC 17802	+
<i>Klebsiella pneumoniae</i>	ATCC 13383	-

## PRECAUTIONS

Ornithine Decarboxylase Test is not classified as hazardous under current legislation, neither does it contain noxious substances in concentrations  $\geq 1\%$ . Ornithine Decarboxylase Test is a disposable device to be used only for diagnostic use *in vitro*. It is intended for use in a professional environment and must be used in the laboratory by properly trained personal, using approved asepsis and safety methods for handling pathogenic agents.

## STORAGE

Store Ornithine Decarboxylase Test at 2-6 °C in its original package. In such conditions the product is valid until the expiry date shown on the label. Do not use them beyond that date. Dispose of them if they show signs of deterioration.

## DISPOSAL OF USED MATERIAL

After the use, Ornithine Decarboxylase Test and the material that has come into contact with the sample must be decontaminated and disposed of in accordance with the laboratory procedures for the decontamination and disposal of potentially infected material.

## REFERENCES

- K. Brooks and T. Sodeman. (1974). A rapid method for determining decarboxylase and dihydrolase activity. J. Clin. Path. 27, 148-152.
- MacFaddin, J. F. (2000). Biochemical tests for the identification of medical bacteria. The Lippincott Williams & Wilkins Co., Philadelphia. Pa. 3<sup>rd</sup> ed. 120-135.

## PACKAGING

Cat. No : MB-88015  
Ornithine Decarboxylase Test

30 tubes