O.N.P.G. TEST

ENGLISH

Rapid test for the detection of bacterial ß-galattosidase.

DESCRIPTION

O.N.P.G. TEST is a rapid test for the detection of bacterial ß-galattosidase.

CONTENT OF THE PACKAGES

Each package contains 5 cartridges with 50 discs in a thermo-sealed container, a desiccant and an instruction sheet.

ITEMS NECESSARY BUT NOT INCLUDED IN THE PACKAGES

Physiological solution, sterile disposable tubes, sundry microbiology laboratory materials.

PRINCIPLE OF THE METHOD

The ortho-nitrophenyl-galactopyranoside (O.N.P.G.), contained in the medium, is hydrolyzed by microorganisms able to produce the enzyme ß-galactosidase with the formation of a yellow colour orthonitrophenolic compound. Some *Enterobacteriaceae* as for example *E.coli, Klebsiella* spp., *Enterobacter spp.* produce both ß-galactosidase and permease and so they are lactose fermenter, others as *Citrobacter* spp. and *Arizona* spp. produce only ß-galattosidasi and so they slowly ferment lactose, others as *Salmonella* spp., *Shigella* spp., *Proteus* spp., *Providencia* spp. and *Morganella* spp. do not produce ß-galactosidase therefore they are not lactose fermenter. The presence of ß-galactosidase enzyme is important for the taxonomy of *Enterobacteriaceae*.

COMPOSITION

Each disc is impregnated with ortho-nitrophenyl-galactopyranoside (O.N.P.G.), which is a specific substratum for the ß-galactosidase.

TEST PROCEDURE

1. Take the package from the fridge, take a cartridge and leave it for a few minutes on the bench until it has reached room temperature.
2. Insert a **O.N.P.G. TEST** disc into a sterile tube.
3. Add 0.2 mL of physiological solution to the tube.
4. With a sterile loop suspend in the culture medium of the tube a well isolated bacterial colony of 24 hours incubation chosen from a selective or not selective medium containing lactose.
5. Take a second tube, insert a **O.N.P.G. TEST** disc and add 0.2 mL of physiological solution. Do not to inoculate this tube and use it as negative control.
6. Put the top to the tubes and incubate them at 36 ± 1 °C for a minimum of 4 hours till a maximum of 24 hours.

INTERPRETATION OF THE RESULTS

Interpret the results according to the table 1:

Table 1

Colour of the medium	O.N.P.G TEST
Yellow	Positive
Colourless	Negative

QUALITY CONTROL FOR THE USER

Appearance: white discs.

Microbiological control:
Each batch of **O.N.P.G. TEST** is subjected to the quality control, using one bacterial culture of *Citrobacter freundii* ATCC® 8090 as positive control and one of *Proteus mirabilis* ATCC® 25923 as negative control.

PRECAUTIONS

The product, **O.N.P.G. TEST**, is not classified as hazardous under current legislation, neither does it contain noxious substances in concentrations ≥1%. **O.N.P.G. 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 personnel, using approved asepsis and safety methods for handling pathogenic agents.

STORAGE

Store **O.N.P.G. TEST** at 2-8 °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, **O.N.P.G. 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

1. Edwin H.Lenette: Manual of Clinical Microbiology (1995).
2. BLAZEVIC, D.J., and EDERER, G.M.: Principles of biochemical tests in diagnostic microbiology. 63-67. New York, John Wiley & Sons, 1975.
3. S.P. Lapage and M.S. Jayaraman. Beta-galactosidase and lactose fermentation in the identification of enterobacteria including salmonellae.J.Clin.Path. (1964), 17,117.
4. *J.Lederberg, The ß-galactosidase of escherichia coli, strain K-12., J. Bact., 60, 381 (1950).*

PRESENTATION

Product	Ref.	Tests
O.N.P.G. TEST	88105	250 discs

TABLE OF SYMBOLS

IVD *In Vitro* Diagnostic Medical Device	Do not reuse	Manufacturer	Contains sufficient for <n> tests	Temperature limitation
REF Catalogue number	Fragile, handle with care	Use by	Caution, consult accompanying documents	LOT Batch code

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