

TBL 029 - ONPG DISCS

INTENDED USE

Testing for ONPG.

PRODUCT SUMMARY AND PRINCIPLE

ONPG (Ortho-nitrophenyl beta-D-galactopyranoside) is a synthetic colourless compound (galactoside) structurally similar to lactose (1). beta-galactosidase cleaves ONPG to galactose and o-nitrophenyl, a yellow compound. The ONPG test is especially useful in the rapid identification of cryptic lactose fermenters (late fermenters). Since members of family *Enterobacteriaceae* are routinely grouped according to their lactose fermenting ability the ONPG test is significant here. ONPG discs are sterile filter paper discs impregnated with ONPG. ONPG is similar in structure to lactose. The presence of two enzymes is required to demonstrate lactose fermentation in a conventional test. The first enzyme permease, facilitates the entry of lactose molecules into the bacterial cell while the second enzyme, beta-galactosidase, hydrolyzes the lactose to yield glucose and galactose. True non-lactose fermenters lack both enzymes; however, some organisms lack permease but possess betagalactosidase. These organisms are late lactose fermenters.

INSTRUCTION FOR USE

Place one ONPG disc in a sterile test tube. Add 0.1 ml of sterile 0.85% w/v sodium chloride solution (physiological saline). Pick up the colony under test with a sterile loop and emulsify it in physiological saline in the tube containing the disc. Incubate at 35-37°C. To detect active lactose fermenters, observe the tube at an interval of one hour, for upto 6 hours. To detect late lactose fermenters, incubate the tubes for upto 24 hours

QUALITY CONTROL SPECIFICATIONS

Appearance : Filter paper discs of 6 mm diameter bearing letters "On" in continuous printing Style.

INTERPRETATION

ONPG reaction observed in 0.85% sodium chloride solution of following culture containing ONPG (TBL029) disc after an incubation of Upto 4 hours at 35-37°C.

Microorganism	ATCC	ONPG
<i>Citrobacter freundii</i>	8090	Positive reaction: yellow colour
<i>Enterobacter aerogenes</i>	13048	Positive reaction: yellow colour
<i>Escherichia coli</i>	8739	Positive reaction: yellow colour

<i>Salmonella Choleraesuis</i>	12011	Positive reaction: yellow colour
<i>Proteus vulgaris</i>	13315	Negative reaction: no colour change
<i>Salmonella Typhimurium</i>	14028	Negative reaction: no colour change

PACKAGING:













In pack size of 50 Discs/vl.

STORAGE

Store at 2 - 8°C. Use before expiry date on the label.

REFERENCES

1.Lowe G.H., 1962., J. Med. Lab. Technol., 19:21.

 GMP Good Manufacturing Practices Certified	 IVD For In Vitro Diagnostic Use	 QTY. Quantity	 LOT/ B. NO. Lot / Batch Number	 REF Catalogue Number	 Manufacturer
 Temperature Unit	 EC REP Authorized Representative	 European Conformity	 QR Code	 Consults Instructions for Use	 Best Before

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**
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