

K1495 WEETAB ONPG/PYR

PRINCIPLE/DISCUSSION:

The combined ONPG/PYR tablet is useful in speciating several different types of organisms, including enterics, non-fermentors, streptococci, anaerobes, and staphylococci.

ONPG: The demonstration of beta-galactosidase is accomplished by the hydrolyzation of ortho-nitrophenol- β -D-galactopyranoside liberating ortho-nitrophenol with its characteristic yellow color.

PYR: The ability to enzymatically hydrolyze β naphthylamine from L-pyrrolidonyl β naphthylamine is demonstrated by reaction with an aminopeptidase reagent producing an orange to red color.

ACTIVE INGREDIENTS / MATERIAL SAFETY DATA:

Each tablet contains .05 mg. of O-nitrophenyl- β -D-galactopyranoside (ONPG) & L-pyrrolidonyl- β -naphthylamide (PYR). ONPG is not considered hazardous. PYR is a possible carcinogen and forms toxic fumes when burned. The amount of substrate in a tablet is not enough to be considered hazardous but do not use other than as recommended.

STORAGE:

Store tightly covered in the freezer.

MATERIALS REQUIRED:

ONPG/PYR tablets require fresh 24 hour growth on culture media. Consult the Manual of Clinical Microbiology for recommended media for the specimen. The tablets are provided ready to use in tubes, 28 per container. The following items are required but not provided:

Inoculating loop

Distilled or purified water

PEP reagent (K2375, K982375, or equal)

PROCEDURE:

(1) Remove cap and add 5 drops of water.

(2) Inoculate heavily. A loopful of organism from a culture plate or slant should be sufficient.

(3) Incubate aerobically at 35-37C for 2 hours.

INTERPRETATION:

ONPG: The appearance of a yellow color at any time during the 2 hours is a positive result.

PYR: Add 2-3 drops of aminopeptidase to the completed ONPG test. Shake slightly and observe for the immediate development of a red or hot pink color. Negative tests will remain yellow or clear.

NOTE: Some organisms may produce a slight peach color when negative. This is produced by the reagent and should not be mistaken for a positive reaction. If the organism being tested is taken from blood agar or other media containing tryptophane, interference will occur if the organism is indole positive. In this case red, purple, or navy blue will be positive while green, sky-blue, or yellow will be negative.

QUALITY CONTROL:

Known positive and negative test organisms should be run with each batch. We recommend the ATCC strains listed below or any organisms of known reactivity. Dispose of all used material in a manner appropriate for biohazardous material.

	ONPG
PYR	
- <i>Escherchia coli</i> (25922)	+
- <i>Klebsiella pneumoniae</i> (33495)	+
+ <i>Proteus vulgaris</i> (8427)	-
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See the Manual of Clinical Microbiology for more complete listings.

REFERENCES

(1) Manual of Clinical Microbiology, Fifth Edition, Chapter 36, "Enterobacteriaceae"; Chapter 28, "Staphylococcus"; Chapter 29, "Streptococci and Related Cocci."



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