K971495 SWAB-IT ONPG/PYR

PRINCIPLE/DISCUSSION:

ONPG: The hydrolization of ortho-nitrophenol-ß-D-galactopyranoside liberates nitrophenol with its characteristic yellow color.

PYR: The hydrolisis of ß naphthylamine from l-pyrrolidonyl ß naphthylamine is demonstrated by reaction with an aminopeptidase reagent producing an orange to red color.

ACTIVE INGREDIENTS:

Each swab contains O-nitrophenyl-ß-D-galactopyranoside (ONPG) and L-pyrrolidonyl-ß-naphthylamide (PYR). MSDS for this product is online at Keyscientific.com.

STORAGE:

.Store swabs and developer, tightly sealed, at 2-8C between uses. All items may be used cold and left on the counter for up to 4 hours daily.

ONPG/PYR swabs require fresh 24 hour growth on culture media appropriate for the specimen. Small tubes (e,g, 12 x 75) are required but not provided.

PROCEDURE:

1) Add 3- 5 drops of rehydrating fluid to a test tube.

2) Using the test swab, pick up several well isolated colonies, enough to make a visible paste on the swab.

3) Place the swab into the tube mixing well to emulsify thoroughly into the water.

4) Incubate aerobically at 32-37C for 30 minutes.

INTERPRETATION:

ONPG:The appearance of a yellow color at any time is a positive result.

PYR: Add 1-2 drops of PEP reagent to the completed test. Observe for the immediate development of an orange to red color. Negative tests will remain yellow , green, or clear.

LIMITATIONS:

Indole reactions of organisms grown on any media containing tryptophane may interfere with the PRO reaction. From such media, positive reactions may be red (naphth+/indol-) or very dark blue to purple (naphth+/indole+). Green or turquoise (indole+), and yellow (indol-) are PRO negative. Some organisms also contain enzymes which react with PEP reagent to produce a red color not created by the PYR chemical. A negative control may be done by streaking a piece of filter paper with the organism and adding reagent.

QUALITY CONTROL:

Known positive and negative test organisms should be run with each batch. We suggest the Klebsiella pnuemoniae ATCC 33495 which os positive for both reactions and Proteus vulgaris ATCC 8427 which is negative for both reactions.. Dispose of all used material in a manner appropriate for biohazardous material. 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.”

KEY SCIENTIFIC PRODUCTS
1113 EAST REYNOLDS ST.
STAMFORD, TEXAS 79553
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Fax 888-440-4208

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K971495-05

K971495 SWAB-IT ONPG/PYR

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