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Section: Technical Manual	Subject Title: PYR Test	
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PYR TEST

Principle

PYR (L-pyrrolidonyl- β -naphthylamide) impregnated disks serve as a substrate for the detection of pyrrolidonyl peptidase. Following the hydrolysis of the substrate by the enzyme the resulting β -naphthylamine produces a red colour upon the addition of cinnamaldehyde reagent. This test is used, in conjunction with others, for the identification of catalase negative, gram positive cocci including Enterococci and Group A Streptococci.

Reagents

PYR discs
Cinnamaldehyde reagent (0.01% p-dimethylamino-cinnamaldehyde)
(disks and reagents are both in PYR kit)
Glass slide
Inoculating loop
Forceps
Sterile distilled water

Procedure

1. Place a PYR disk onto a glass slide and moisten it with one drop of sterile distilled water.
2. Rub a loopful of the culture onto the moistened disk holding it in place with sterile forceps.
3. Leave at room temperature for 2 minutes.
4. After 2 minutes, add 1 drop of cinnamaldehyde reagent.

Interpretation

Positive: Pink or cherry red colour within one minute

Negative: No colour change or slight yellow colour

Quality Control

Test knows positive and negative controls each time an unknown is run.

Positive: Group A streptococcus (ATCC 19615)

Negative: Group B streptococcus (ATCC 13813)

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Reference

1. Carr-Scarborough Microbiologicals package insert 1990.