


STANTON TERRITORIAL HEALTH AUTHORITY

Yellowknife, Northwest Territories

TITLE: PYR Test	Revision Date: 20-April-2018	Issue Date: 20-April-2016
Document Number: MIC51600	Status: Approved	
Distribution: Microbiology Test Manual	Page: 1 of 3	
Approved by: S. Asmussen, Manager of Diagnostic Services	Signed by: 	

PURPOSE:

L-pyrrolidonyl-p-naphthylamide (PYR) is the substrate for the detection of Pyrrolidonyl peptidase (PYRase). Hydrolysis of PYR by peptidase results in the production of β -naphthylamide which can be visualized as a **red** color upon the addition of the n, n-dimethyl-amino-cinnamaldehyde (color indicator). This is a useful tool in the identification of *Streptococcus pyogenes*, enterococci and *Staphylococcus lugdenensis*. It can also be used for separating PYR negative *E.coli* from other indole-positive, lactose-positive Gram negative rods.

SAMPLE INFORMATION:

Type	One well isolated colony
Source	Remel CAT#R30854301
Storage Requirements	2-8°C

REAGENTS and/or MEDIA:

- PYRase impregnated discs
- Color reagent

SUPPLIES:

- Glass slide
- Wooden stick

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Distribution: Microbiology Test Manual	Page: 2 of 3	

SPECIAL SAFETY PRECAUTIONS:

Containment Level 2 facilities, equipment, and operational practices for work involving infectious or potentially infectious materials or cultures.

- Lab gown must be worn when performing activities with potential pathogens.
- Gloves must be worn when direct skin contact with infected materials is unavoidable.
- Eye protection must be used where there is a known or potential risk of exposure to splashes.
- All procedures that may produce aerosols, or involve high concentrations or large volumes should be conducted in a biological safety cabinet (BSC).
- The use of needles, syringes, and other sharp objects should be strictly limited.

QUALITY CONTROL:

Performed once per day:

- Positive Control: *Enterococcus faecalis* ATCC29212
- Negative Control: *Streptococcus agalactiae* ATCC12386

A QC order is generated in the TQC system: Resulting Worklist→MICS→PYR

PROCEDURE INSTRUCTIONS:

Step	Action
Performing a PYR Test	
1	In the plate log, add the Media “^PYR”
2	Place the filter paper on the surface of the agar plate – the agar will hydrate the filter paper Alternately, place the filter paper on a clean slide and slightly moisten with sterile water

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Distribution: Microbiology Test Manual	Page: 3 of 3	

3	Using a wooden stick, touch one well isolated colony and rub it on the surface of the filter paper
4	Let it sit for 3 minutes.
5	Add one drop of the color reagent and observe for color change

INTERPRETATION OF RESULTS:

IF	THEN
Red color production	Positive
No color change	Negative



REFERENCES:

- Clinical Microbiology Procedures Handbook. (n.d.). PYR (L-Pyrrolidonyl-B-Naphthylamide) Test. p. 13.17.41.

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	31Dec13	Initial Release	Darrach (A)
2.0	31Mar16	Update of "Special Safety Precautions" to reflect risk assessment recommendations.	C. Russell