TM 2271 – PYR AGAR

INTENDED USE

For the isolation and identification of *Streptococcus pyogenes*.

PRODUCT SUMMARY AND EXPLANATION

PYR hydrolysis is a presumptive test for both group A and group D enterococcal streptococci. The PYR test determines the activity of enzyme L-pyrrolidonyl arylamidase (PYR) produced by *Streptococcus pyogenes* but not by other ß-haemolytic streptococci. Free b-napthylamide is then detected by addition of the diazo dye complex, N,N dimethylaminocinnamaldehyde. Development of a red colour is indicative of PYR hydrolysis. PYR test is a highly sensitive test, which replaces bacitracin and salt tolerance (growth in 6.5% NaCl) tests. PYR Agar is recommended for detection and presumptive identification of *S. pyogenes* based on PYR hydrolysis. Todd Hewitt Broth Base acts as the basal medium to which the agar and substrate for PYR enzyme are added.

COMPOSITION

Ingredients	Gms / Ltr
Beef heart, infusion from	500.00
Peptone	20.000
Sodium chloride	2.000
Dextrose (Glucose)	2.000
Disodium hydrogen phosphate	0.400
Sodium carbonate	2.500
Chromogenic mixture	0.100
Agar	15.000

PRINCIPLE

This medium consists of beef heart, infusion from which provides nitrogenous nutrients. Dextrose is the carbohydrate serving as an energy source. Disodium phosphate serves as buffering agent and sodium chloride maintains osmotic balance. Chromogenic mixture provides substrate for PYR enzyme. After an incubation at 35-37°C for 18-24 hours, add 1 drop of PYR reagent directly to suspected surface growth on plate.

INSTRUCTION FOR USE

- Dissolve 52.0 grams in 1000 ml purified/ distilled water.
- Heat to boiling to dissolve the medium completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to 45-50°C. Mix well and pour aseptically into sterile petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Cream to yellow homogeneous free flowing powder.
Appearance of prepared medium : Light yellow coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 7.8 ± 0.2

INTERPRETATION

Cultural characteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	PYR (on addition of PYR reagent)	Incubation Temperature	Incubation Period
Streptococcus pyogenes	19615	50-100	Luxuriant	>=70%	Positive, red colouration	35-37°C	18-24 Hours
Enterococcus faecalis	29212	50-100	Luxuriant	>=70%	Positive, red colouration	35-37°C	18-24 Hours
Escherichia coli	25922	50-100	Luxuriant	>=70%	Negative	35-37°C	18-24 Hours
Streptococcus agalactiae	12386	50-100	Luxuriant	>=70%	Negative	35-37°C	18-24 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 2-8°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.
Product Deterioration: Do not use if they show evidence of microbial contamination, discoloration, drying or any other signs of deterioration.

DISPOSAL

After use, prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

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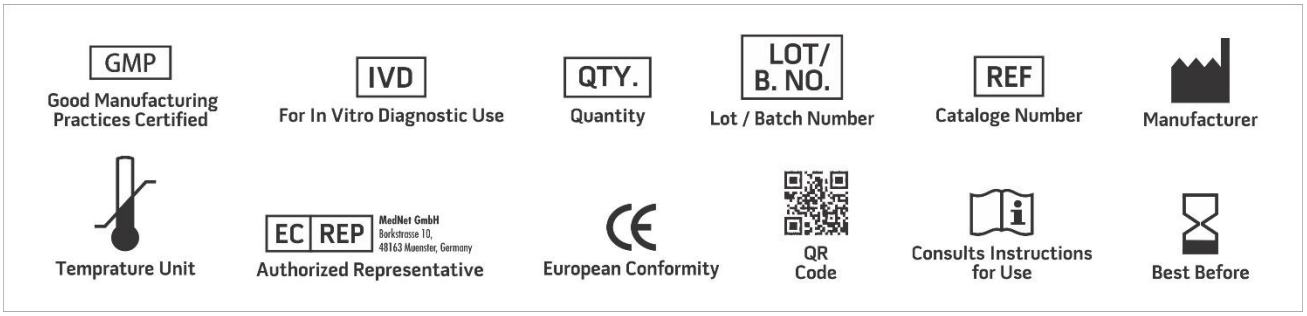

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For Lab Use Only**

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