TM 1584 – PENTACHLORO ROSE BENGAL YEAST EXTRACT AGAR BASE (PRYES AGAR) (as per APHA)

INTENDED USE

For the cultivation and differentiation of nephorotoxin producing strains of *Penicillium viridicatum* and related species isolated from foods in accordance with APHA.

PRODUCT SUMMARY AND EXPLANATION

Mycotoxins are metabolites of fungi which may be produced during mould growth on foods and animal feeds. The most seriously contaminated commodities are cereals and oil seeds. Several mycotoxins in agricultural products cause health hazards to people and animals and also economical problem. Mycotoxins are stable and are not degraded by digestion. Crops contaminated by mycotoxins due to fungal growth if ingested by animals will cause the toxin to enter the food chain. Mycotoxins vary greatly in their severity ranging from some allergic response to lethal effects. PRYES medium was formulated by Frisvad for the cultivation and differentiation of mycotoxin or nephrotoxin producing strains of Penicillium viridicatum and related species. It is also recommended by APHA for the same purpose.

COMPOSITION

Ingredients	Gms / Ltr
Sucrose	150.000
Yeast extract	20.000
Pentachloronitrobenzene	0.100
Rose Bengal	0.025
Chloramphenicol	0.050
Agar	20.000

PRINCIPLE

This medium consists of yeast extract, sucrose(YES) which act as the basal medium and pentachloronitrobenzene and rose bengal and hence the name PRYES. The medium is also supplemented with chloramphenicol and chlortetracycline. This combination is more effective in inhibiting bacteria than chloramphenicol alone. This medium distinguishes between producers of ochratoxin A and citrinin and producers of xanthomegnin and viomellein. Ochratoxin and citrinin-producing *Penicillium viridicatum* strains form a violet brown pigment seen on the reverse side of colony.

INSTRUCTION FOR USE

- Dissolve 190.18 grams in 1000 ml distilled water.
- Heat to boiling to dissolve the media completely.
- Sterilize by autoclaving at 15 psi pressure (121°C) for 15 minutes.
- Cool to around 55°C and aseptically add rehydrated contents of 1 vial of Chlortetracycline Selective Supplement. If required, adjust the pH of the medium with sterile tartaric acid after autoclaving.
- Mix well and pour the medium into sterile Petri plates and do not invert the plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder : Light yellow to pink homogeneous free flowing powder.
Appearance of prepared medium : Pink coloured clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C) : 5.6 ± 0.2

INTERPRETATION

Cultural characteristics observed with added Chlortetracycline Selective Supplement after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	Incubation Temperature	Incubation Period
Penicillium viridicatum	10515	10-100	Luxuriant	>=70%	25-30°C	48-72 Hours
Staphylococcus aureus	25923	50-100	Inhibited	0%	25-30°C	48-72 Hours
Escherichia coli	25922	50-100	Inhibited	0%	25-30°C	48-72 Hours

PACKAGING:

In pack size of 500 gm bottles.

STORAGE

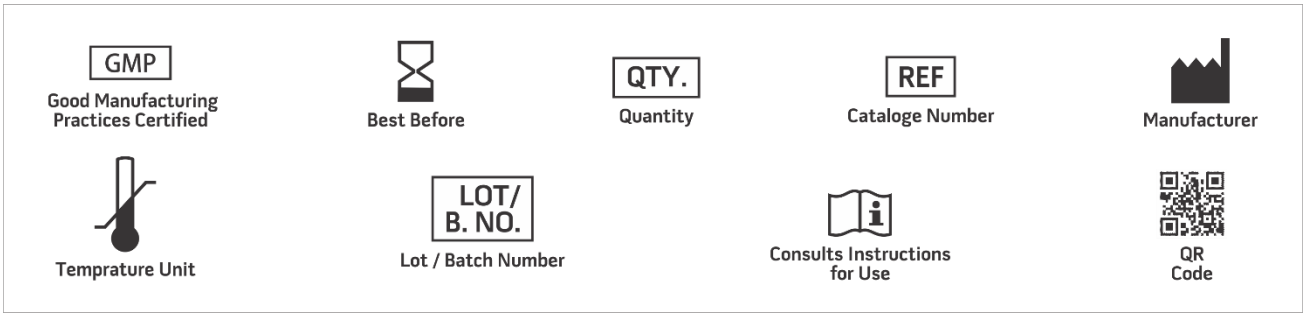
Dehydrated powder, hygroscopic in nature, store in a dry place, in tightly-sealed containers between 25-30°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided 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

1. Collins C. H., Lyne P. M., Grange J. M., 1995, Collins and Lynes Microbiological Methods, 7th Ed., Butterworth Heinemann.
2. Frisvad J. C., 1981, Appl. Environ. Microbiol., 41 : 568.
3. Frisvad J. C., 1983, J. Appl. Bacteriol., 54: 409.
4. Vanderzant C. and Splittstoesser D. F., (Eds.), 1992, Compendium of Methods for the Microbiological Examination of Foods, 3rd Ed., APHA, Washington, D.C.



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

***For Lab Use Only**

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