RAPID 1 day culture test

HiDtect™ Rapid Identification Disc

HiMedia have always been in frontline in finding solutions to the existing challenges in the field of microbiology and this urge has helped in the development of a wide range of products.

Latest and economical range of diagnostic product HiDtect™ Rapid Identification Disc has been developed which helps in direct identification of microorganisms from clinical samples, water samples, food samples, environment etc.

HiMedia's new range of HiDtect™ Rapid Identification Discs is simple to perform. It eliminates the use of Selective Medias and further study elaborate biochemical tests.

Around twenty such unique discs are developed (DT001 to DT020) which finds application in various sectors of Food & Dairy industry, Water industry, Pharmaceuticals Laboratory Testing, Cosmetics industry, Environmental & Sanitary Testing, Clinical Diagnosis etc.

In either fields it involves the use of Enriched and Selective medias. The isolate is often presumptively identified morphologically by special staining methods and plated out on diagnostic medias. Further elaborate biochemical tests are done for confirmation of the isolate recovered. Overall the whole procedure is time consuming, expensive and laboroius. Hence there is continuous search for a technology that could aid in rapid, reliable, simple and economical diagnosis worldwide.

HiDtect™ Rapid Identification Discs enables rapid and reliable detection of microorganisms.

Detection of E.coli from milk powder can be done using DT008 discs.

Testing method

It involves routine inoculating and isolation technique followed by replication and direct identification

Step I Enrichment

Prepare 1:10 or greater dilution of milk powder. Weigh the milk powder into an appropriate container such as homogenizer bag, dilution bottle or other sterile container. Add buffered peptone water (ISO 6887-1). Blend or homogenize the sample.

Step II Inoculation, Isolation and Incubation

Inoculate the organisms from sample on any of general purpose media, Nutrient Agar, Soyabean Casein Digest Agar, Plate Count Agar etc.

Adopt any of surface plating methods as; Spread Plate Method, Quadrant (four or five) streak pattern or T streak method so as to obtain isolated colonies from inoculums. Incubate at 35-37°C for 18-24 hours. Check for bacterial growth.

Step III Replication and Identification

Place the DT008 Rapid Identification disc on the surface of Agar plate. Perform this step for maximum of 30 seconds to 1 Min. Mark the corresponding orientation of paper. This is replication technique.

Incubate the replicated identification disc in empty sterile Petri dish at 35-37°C for 1-4 hours or if desired paper disc can be placed on dry lid* of same plate & incubate in inverted position.* If lid has moisture wipe it with sterile cotton. Alternately the disc may be kept for incubation on growth media at 35-37°C for 1-4 hours. Observe for development of colour and interpret results.

Advantages

- Economical & highly reliable
- Convenient & user friendly
- Effortless testing reduces time & labour
- Rapid & Reliable results in 1-4 hours
- Direct application without any preparations
- Wide range of confirmation tests to meet the needs of microbiologists & pathologists
- Permanent findings can be retained for further traceability

HiDtect™

RAPID 1 day culture test

Systematic Procedure for HiDtect Application

Prepare 1:10 or greater dilution of milk powder

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Inoculate into Sterile Medium Plate

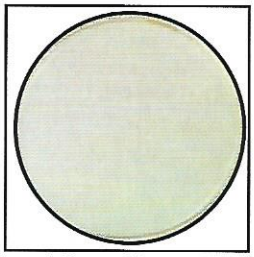

Figure 1-General Purpose media. e.g. Nutrient Agar, Soya Agar, Plate count Agar etc.

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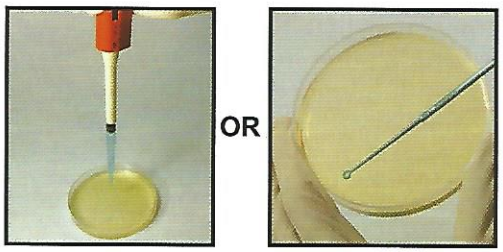
Inoculation



(Quantitative method) OR (Streak plate method)

Figure 2-Inoculate plate with Test Sample.

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Incubate at 35 - 37°C
For 18 - 24 Hrs

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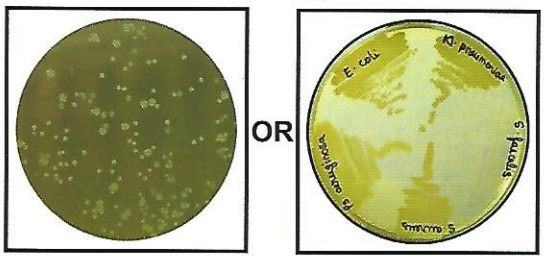
Growth of Organisms



(Quantitative method) OR (Streak plate Method)

Figure 3-Growth after incubation at 35 to 37°C after 18-24 hrs

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Lifting of Paper

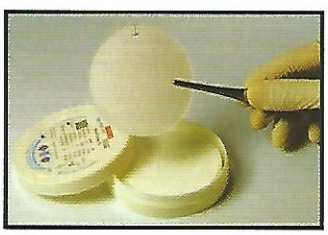

Figure 4- With the help of sterile forcep remove the Rapid Identification Disc under aseptic condition. If required mark the corresponding orientation of the paper. *For traceability, suggested to mark on paper if required

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Placement of Paper

Figure 5- Place the HiDtect Disc on the surface colonies of Agar plate (as obtained in Fig. 3).

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Replication of Discs

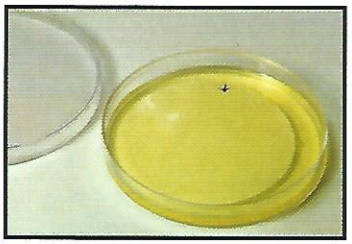

Figure 6 -Allow the filter paper to adsorb the growth by allowing the disc to be in contact with the surface of Agar plate for 30 seconds to 1 Min. (THIS IS REPLICATION.)

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Transfer to Sterile Plate

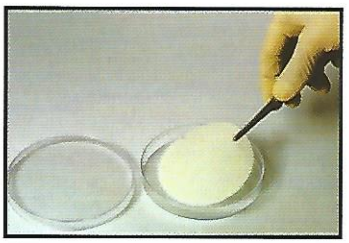

Figure 7-Transfer the disc to a sterile empty Petri plate or if desired paper disc can be placed on dry lid* of same plate & incubate in inverted position. * If lid has moisture wipe it with sterile cotton.

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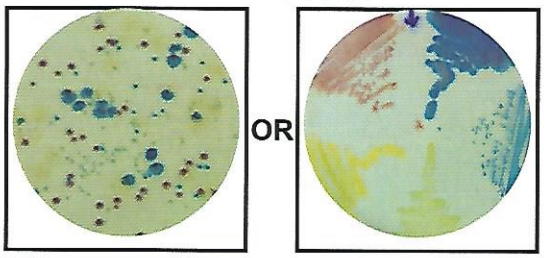
(The paper can be autoclaved and stored or saved in computer by scanning for further reference)

Final Results



(Quantitative method) OR (streak plate method)

Figure 8- Results after incubation at 35 to 37°C for 1 to 4 hrs

- *Simply Inoculate → Incubate → Replicate → Interpret & Confirm in 1-4 hours*
- *Economical, Convenient, Rapid and Reliable test for confirmation of bacteria*
- *Beneficial to Clinical, Food & Meat industry, Dairy, Water, Pharmaceutical, Environmental and Cosmetic industry*

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