Biomed Global

Rev: 0

DNase Agar | Ready-to-use Media

a product by **Biomed MDX**

Effective Date: 15/11/2024

REF FP90D1002

IVD

Intended Use:
Common differential medium used for the detection of deoxyribonuclease activity in bacteria.

Principle of the Procedure:
DNase agar's principle is based on detecting the enzyme deoxyribonuclease (DNase) activity in microorganisms. The medium contains nutrients for bacterial growth, DNA as the substrate for DNase, and often a dye as an indicator. When a microorganism capable of producing DNase is grown on this agar, the enzyme diffuses outwards and breaks down the surrounding DNA into smaller fragments.

Product Summary:
In 1957, Jeffries and his colleagues developed a specialized medium to detect the presence of an enzyme called deoxyribonuclease (DNase) produced by certain microorganisms. This enzyme breaks down DNA in the medium. When this medium is flooded with hydrochloric acid, a clear zone appears around colonies of bacteria that produce DNase, indicating the breakdown of DNA. DNase Test Agar has proven valuable in the identification of various bacterial species, including staphylococci, enteric gram-negative bacteria (such as those found in the intestines), and pseudomonads.

Formulation (Approximately *per Liter):

Tryptose	20.0g	**Sodium Chloride**	5.0g
Deoxyribonucleic acid	2.0g	**Agar**	12.0g

pH 7.3 +/- 0.2

**Adjust and/or supplemental as required to meet performance criteria*

Procedure

Materials Provided
90mm DNase Agar.

Materials Required but Not Provided
Ancillary culture media, reagents, and laboratory equipment as required.

Test Procedure
1. Streak the specimen as soon as possible after it is received in the laboratory with an aseptic technique.
2. Incubate plates at 35°C ± 2°C for 18 to 24 hours.
3. Flood 1N HCl reagent onto the surface of the colony. Observe the result according to user requirements.
4. Dispose of all used reagents and contaminated materials as infectious waste. Laboratories must handle and dispose of all waste safely according to regulations.

Results
After incubation, most plates will show an area of confluent growth. Because the streaking procedure is, in effect, a dilution technique, diminishing numbers of micro-organisms are deposited on the streaked areas.

Quality Control

Inoculate representative samples with the following strains. Incubate the inoculated plates at 35 ± 2°C for 18 to 24 hrs. to allow colonies to develop on the medium.

Strains	ATCC®	Growth Results
Staphylococcus aureus	25923	Good, Positive reaction
Staphylococcus epidermis	12228	Good, Negative reaction
Streptococcus pyogenes	19615	Good, Positive reaction
Uninoculated plate	-	No growth

Transportation:

Temperature fluctuations may occur during transportation. However, these fluctuations do not affect the performance, quality, or safety of the media.

Storage and Shelf Life:

Upon receipt, store plates at 2 to 8°C, in their original sleeve wrapping until just before use. Avoid freezing and overheating.

The plates may be inoculated up to the expiration date (see package label) and incubated for the recommended incubation times.

Warning and Precautions:

For in vitro diagnostic use. For Professional Use Only. Do Not Reuse.

Do not use plates if they show evidence of microbial contamination, discoloration, drying, cracking, or other signs of deterioration.

Limitations of the Procedure

For identification, organisms must be in pure culture. Morphological, biochemical and/or serological tests should be performed for final identification[1-4].

Reference

1. Bridson, E.Y. (2006) The OXOID Manual. 9th Edition, Oxoid Limited, Basingstoke.

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Packaging Symbol

Symbol	Definition
REF	Catalogue number
IVD	In Vitro Diagnostic Medical Device
LOT	Batch code
	Date of manufacture
	Temperature limit
	Use-by date
	Keep away from sunlight
	Do not re-use
	Fragile, handle with care
	Consult instructions for use or consult electronic instructions for use
	Do not use if packaging damaged and consult instructions for use
	Manufacturer

Further Information:

For further information please contact your Biomed MDX representative.

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