CM 20606 – DNASE TEST AGAR W/ METHYL GREEN

INTENDED USE

For detection of deoxyribonuclease activity of microorganisms & identification of pathogenic Staphylococci.

PRODUCT SUMMARY AND EXPLANATION

DNasetestAgar is used fordetecting deoxyribonuclease activity of bacteria and fungi and particularly for identification of pathogenic Staphylococci. DNase producing organisms exhibit clear zone around growth against green background. Reagent addition is not required. This medium is based on modification of the procedure for detecting DNase-producing bacteria as per Smith, Hanoch, and Rhoden and Jefferies, Holtman and Guse. The medium supports growth of both gram positive and gram-negative bacteria.

COMPOSITION

Ingredients	Gms / Ltr
Tryptose	20.000
Deoxyribonucleic acid (DNA)	2.000
Sodium chloride	5.000
Methyl green	0.050
Agar	15.000

PRINCIPLE

Themedium consists of Tryptose which serves as nitrogenous source for the organisms. DNase produced by microorganisms depolymerizes the DNA substrate in the medium. Methyl green fades into a colourless compound producing distinct clear zones surrounding colonies (or band/spot inocula) in an otherwise green coloured medium. Methyl green requires a highly polymerized DNA substrate and it combines with polymerized DNA forming a stable, green complex at pH 7.5. As hydrolysis progresses, methyl green is released and when not combined at this pH it fades and becomes a colourless compound. Therefore, clear zones are observed.

INSTRUCTION FOR USE

Dissolve 42.05 gramsin 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 in sterile Petri plates.

QUALITY CONTROL SPECIFICATIONS

Appearance of Powder	: Light yellow to greenish yellow homogeneous free flowing powder.
Appearance of prepared medium	: Green coloured, clear to slightly opalescent gel forms in Petri plates.
pH (at 25°C)	: 7.3 ± 0.2

INTERPRETATION

Culturalcharacteristics observed after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Recovery	DNase Activity	Incubation Temperature	Incubation Period
Serratia marcescens	29212	50-100	Luxuriant	>=70%	Positive, clear halo around the growth	35-37°C	18-24 Hours
Staphylococcus aureus subsp. aureus	25922	50-100	Luxuriant	>=70%	Positive, clear halo around the growth	35-37°C	18-24 Hours
Staphylococcus epidermidis	13076	50-100	Luxuriant	>=70%	Negative reaction	35-37°C	18-24 Hours
Streptococcus pyogenes	14028	50-100	Luxuriant	>=70%	Positive, clear halo around the growth	35-37°C	18-24 Hours

PACKAGING:

Inpacksizeof100 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

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

REFERENCES

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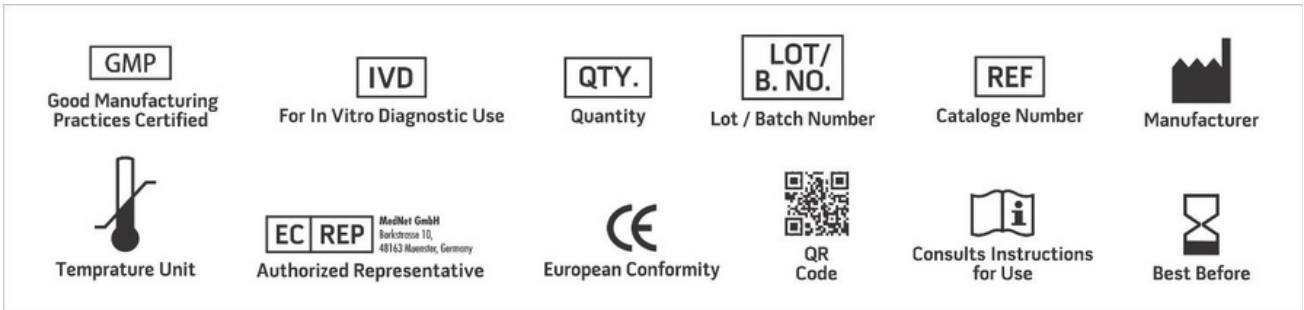

NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

*For LabUse Only