

## Specification

Solid culture medium for the determination of the deoxyribonuclease activity of microorganisms, especially staphylococci and *Serratia* spp.

## Presentation

	Packaging Details	Shelf Life	Storage
20 Prepared Plates 90 mm with: 21 ± 2 ml	1 box with 2 packs of 10 plates/pack. Single cellophane.	3,5 months	2-14 °C

## Composition

Composition (g/l):	
Pancreatic digest of casein.....	10.0
Proteose peptone n.3.....	10.0
DNA .....	2.00
Sodium chloride.....	5.00
Methyl green.....	0.05
Agar.....	15.0

## Description /Technique

### Description:

Differential medium used for the detection of DNase activity to aid in the identification of bacteria isolated from clinical samples.

### Technique:

Spread the plates by streaking methodology or by spiral method.

Incubate the plates right side up aerobically at 35-37°C for 24-48 h.

After incubation, enumerate all the colonies that have appeared onto the surface of the agar.

If the microorganism produces DNAase enzymes to hydrolyse the DNA, a clear Yellowish halo will appear around the colonies.

*S.aureus* - Positive Reaction

*S.epidermidis* - Negative Reaction

*Serratia marcescens* - Positive Reaction

*Klebsiella* sp. - Negative Reaction

Presumptive isolations must be confirmed by further microbiological and biochemical tests.

## Quality control

### Physical/Chemical control

Color : Green      pH: 7.3 ± 0.2 at 25°C

### Microbiological control

Isolation by loop spreading

Analytical methodology according to ISO 11133:2014/A1:2018; A2:2020.

Aerobiosis. Incubation at 35°C ± 2 °C, reading at 24-48 hours

### Microorganism

*Serratia marcescens* ATCC® 13880

*Stph. aureus* ATCC® 25923, WDCM 00034

*Staphylococcus aureus* ATCC® 6538, WDCM 00032

*Ps. aeruginosa* ATCC® 27853, WDCM 00025

*Escherichia coli* ATCC® 25922, WDCM 00013

### Growth

Good - DNase positive

Good - DNase positive

Good - DNase positive

Good - DNase negative

Good - DNase negative

### Sterility Control

Incubation 48 h at 30-35 °C and 48 h at 20-25 °C: NO GROWTH.

Check at 7 days after incubation in same conditions.

**Reference:** 105025ZA      **Technical Data Sheet**

**Product:** **DNase Test Agar w. Methyl Green**



### Bibliography

- DISALVO, J.W. (1958) Desoxyribonuclease and Coagulase Activity of Micrococci. Med. Tech. Bull. U.S. Armed Forces. Med. J. 9:191.
- JEFFRIES, C.D., D.F. HOLTMAN & D.G. GUSE (1957) Rapid Method for Determining the Activity of Microorganisms on NucleicAcids. J. Bacteriol. 73:590-591.
- MacFADDIN, J.F. (1985) Media for Isolation-Cultivation-Identification-Maintenance of Medical Bacteria.
- SMITH, P.B., G.A. HANCOCK & D.L. RHODEN (1969) Improved medium for detecting deoxyribonuclease-producing bacteria. Appl. Microbiol. 18:991-993.