

# DNase Agar with Toluidine Blue



Medium is used for the identification and determination of deoxyribonuclease activity of microorganisms.

## • CONTENTS (Liter)

Casein Peptone	15.0 g
Soy Peptone	5.0 g
Sodium Chloride	5.0 g
Deoxyribonucleic Acid	2.0 g
Toluidine Blue O	0.1 g
Agar	15.0 g
Final pH = 7.3 ± 0.2 at 25°C	

## • PROCEDURE

Suspend 42.1 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45 - 50°C in water bath. Mix well. Pour into petri dishes.

## • INTERPRETATION

DNase Agar with Toluidine Blue is a medium used for the identification and determination of deoxyribonuclease activity of microorganisms. Casein peptone and soy peptone provide nitrogen, carbon, vitamins and minerals. Sodium chloride maintains the osmotic balance. Toluidine blue reacts with DNA and forms a blue complex. When DNA is depolymerized, the structure of toluidine dye is changed resulting in a pink color around DNase-producing colonies. Some strains of staphylococci may be inhibited by toluidine blue. Additional biochemical tests for definitive identification should be required. Agar is the solidifying agent.

## • TECHNIC

Inoculate the specimen using a sterile loop to the medium. Incubate at 35 ± 2°C for 18 - 24 up to 48 hours. Refer appropriate references for recommended test procedure.

## • QUALITY CONTROL FOR USE

### Dehydrated medium

Appearance: free-flowing, homogeneous

Color: bluish beige

### Prepared medium

Appearance : clear to slightly opalescent

Color: blue

Incubation conditions: 35 ± 2°C / 18 - 24 hours up to 48 hours

Microorganism	ATCC	Growth	DNase Activity
<i>Aeromonas hydrophila</i>	7966	good	+ (pink halo)
<i>Staphylococcus aureus</i>	25923	good	+ (pink halo)
<i>Staphylococcus aureus</i>	6538	good	+ (pink halo)
<i>Streptococcus pyogenes</i>	19615	good	+ (pink halo)
<i>Escherichia coli</i>	25922	good	-
<i>Klebsiella pneumoniae</i>	13883	good	-

**• STORE**

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label. Store prepared medium at 2 - 8°C.

**• REFERENCES**

1. Weckman and Catlin, 1957, J. Bacteriol. 73: 747.
2. Schreir, 1969, J. Clin. Pathol., 51:711.
3. Streitfeld, Hoffman and Janklow, 1962, J. Bacteriol, 84:77.

**• PACKAGE**

Cat. No : MB-D2158 DNase Agar with Toluidine Blue	500 G
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