

Product Information

DNASE TEST AGAR BASE

Product Number **D 8559**

Product Description

DNase Test Agar Base with a supplement of Toluidine blue is recommended for the detection of deoxyribonuclease activity of bacteria and fungi, especially for the identification of pathogenic *Staphylococci*. With added toluidine blue, it is used in differentiation and identification of nonpigmented *Serratia* species that might be improperly identified as *Enterobacter* or *Klebsiella* species (4). Casein enzymic hydrolysate and papaic digest of soyabean meal provide essential nutrients. DNase secreted from colonies depolymerizes the DNA in the agar medium. If the medium is prepared without Toluidine blue these zones of DNA hydrolysis can be visualized by flooding the plate with a weak hydrochloric acid solution or a solution of 0.1% Toluidine blue (T0394). When Toluidine blue is added to the medium itself, DNase activity results in the production of a bright pink reaction due to the metachromatic property of Toluidine blue. Some strains of *Staphylococcus* may be inhibited on DNase Test Agar by the Toluidine blue. Further confirmatory tests for identification should be carried out.

Components

Item	g/L
Casein Enzymic Hydrolysate	15.00
Papaic Digest of Soyabean Meal	5.00
Deoxyribonucleic Acid	2.00
Sodium Chloride	5.00
Agar	15.00

Final pH (at 25 °C) 7.3 ± 0.2

Precautions and Disclaimer

For laboratory use only. Not for drug, household or other uses.

Preparation Instructions

Suspend 42 grams of DNase Test Agar Base in 1000 mls of distilled water. Heat with frequent agitation to dissolve the medium completely. Add 0.1 gram of T0394 Toluidine Blue to the medium, or else after inoculation and incubation flood the plates with a

solution of 0.1% Toluidine Blue as desired. Sterilize by autoclaving at 12 to 15 lbs. pressure (118 °C to 121 °C) for 15 minutes. Cool to 45 °C and pour into sterile petri plates.

Storage

Store the dehydrated medium at 24 °C and the prepared medium at 2-8 °C.

Product Profile

Appearance	Light yellow colored, homogeneous, free flowing powder.
Gelling	Firm.
Color and Clarity	Light amber or blue colored, clear to slightly opalescent gel forms in petri plates.
Cultural Response	Cultural characteristics are observed after 18-24 hours at 35-37 °C.

Organism	(ATCC)	Growth	Dnase Activity
<i>Staphylococcus aureus</i>	(25923)	luxuriant	+
<i>Staphylococcus epidermidis</i>	(12228)	luxuriant	-
<i>Streptococcus pyogenes</i>	(19615)	luxuriant	+
<i>Serratia marcescens</i>	(8100)	luxuriant	+

Key: + = A change in color from blue to pink purple around the bacteria and fungi when toluidine blue is used.

References

- American Type Culture Collection, Manassas, Va., U.S.A.
- Weckman and Catlin, 1957 J. Bact., 73:747\
- Di Salvo, 1958. Med. Tech. Bull., U.S. Armed Forces Med. J., 9:191
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