**OXFORD LAB FINE CHEM LLP**
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**Regd Office:** Unit no 12, 1st Floor,
Neminath Industrial Estate No.6,
Navghar, Vasai (East), Palghar - 410210.
Maharashtra, INDIA.

**Tel:** +91 250 2390032 / 2390989 / 2390990
**Email:** sales@oxfordlabchem.com /
info@oxfordlabchem.com
**Web:** www.oxfordlabchem.com

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# TECHNICAL DATA SHEET

# DNase Test Agar Base

## Principle

**DNase Test Agar Base is composed of tryptone, soya peptone, deoxyribose nucleic acid, sodium chloride and agar. The DNase test agar base is used to detect DNA hydrolyzing microorganism particularly for identification of pathogenic *Staphylococci*. With the help of toluidine blue, it is also used for the identification of non-pigmented *Serratia* species, that might be improperly identified as *Enterobacter* and *Klebsiella* species. These organisms can use nucleotides to make nucleic acids and to use as a source of nitrogen, phosphate and carbon. In addition, tryptone and soya peptone are source of nitrogen, while sodium chloride maintains osmotic equilibrium of the medium.**

**Use: For detection of deoxyribonuclease activity of microorganisms & identification of pathogenic Staphylococci.**

## Contents*

| Ingredients | Gram/Litre |
|---|---|
| Tryptone | 15.00 |
| Soya Peptone | 5.00 |
| Deoxyribose nucleic acid | 2.00 |
| Sodium chloride | 5.00 |
| Agar | 15.00 |
| pH at 25˚C | 7.3 ±0.2 |

*** Formula adjusted for optimum performance and parameters**

**Directions: Dissolve 42.00 grams in 1000 ml distilled water. Boil to dissolve the medium completely. Sterilize by autoclaving at 121 ˚C at 15 lbs for 15 minutes. Cool to room 40 to 45 ˚C and distribute aseptically in petri plates with gentile shaking for equal distribution. Ensure complete solidification and inoculate test sample aseptically.**
**The media can be fortified with 0.1g toluidine blue before sterilization for proper visualization. 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.**

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## Specimens types analyzed
**Clinical, non-clinical, food and dairy samples etc.**

## Precautions to be taken
**These microbial media are intended for the in-vitro use only. All the handling, experiments, storage, and discarding should be performed with the help of skilled and knowledgeable technicians and as per the established guidelines. The material should be disposed only after proper sterilization by autoclaving. Please go through the MSDS of the media to avoid any accidents or in emergency.**

## Performance and Evaluation
**The expected performance of the medium is liable to use as per the direction on the label when stored at optimum conditions and within expiry date.**

## Quality Control

| | |
|---|---|
| **Appearance** | **Light beige colored free flowing, homogeneous powder** |
| **Reaction of 4.20% solution** | **7.3 ±0.2 at 25 ˚C** |
| **pH** | **7.10- 7.50** |
| **Gelling** | **Firm comparable with 1.5% agar gel** |
| **Color and clarity of ready medium** | **Light yellow colored opalescent gel or light blue with toluidine blue colored to slight opalescent gel** |
| **Growth Promotion properties** | **Best at ≤ 100 CFU at 32-37 ºC for 18-72 h** |
| **Indicative properties** | **Optimum at ≤ 100 CFU at 32-37 ºC for 18-48 h** |
| **Negative control** | **Performed using sterile distilled water** |

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**Different Microbial Response: Cultural characteristics observed with added Toluidine Blue after an incubation at 35± 2 ˚C for 18 – 24 hours.**

| Organism | Inoculum | Growth | DNase Activity | Colony color |
|---|---|---|---|---|
| *Staphylococcus aureus* (ATCC: 25923) | 50-100 | Luxuriant | Positive | When toluidine blue is used change in color from blue to pink purple around the growth. Clear zone surrounding colonies observed when flooded 1N HCL on plate |
| *Staphylococcus epidermidis* (ATCC: 12228) | 50-100 | Luxuriant | Negative | -- |

**Storage and Shelf Life: The product is highly hygroscopic; keep the container tightly closed at all times and store it properly as per the conditions mentioned on the label. The declared expiry is valid only when stored as per the conditions mentioned on the label. Note: Sterilize media immediately after reconstitution.**

**Disposal: To avoid the contamination or propagation of any hazardous microbes the used, unusable or modified preparation of this product must be disposed after autoclaving after completion of task.**

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## Reference

1. **American Public Health Association, Standard Methods for the Examination of Dairy Products, (1978), 14th Ed., Washington D.C.**
2. **Jorgensen, J.H., Pfaller, M.A., Carroll, K.C., Funke, G., Landry, M.L., Richter, S.S and Warnock.,**
   **D.W. (2015). Manual of Clinical Microbiology, 11th Edition. Vol. 1.**
3. **Salfinger Y., and Tortorello M.L. Fifth (Ed.), (2015), Compendium of Methods for the Microbiological Examination of Foods, 5th Ed., American Public Health Association, Washington, D.C.**
4. **Wehr H. M. and Frank J. H., (2004), Standard Methods for the Microbiological Examination of Dairy Products, 17th Ed., APHA Inc., Washington, D.C.**

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