

Use and description:

For the differentiation of microorganisms, especially *Staphylococcus* species and *Serratia marcescens* based on their production of deoxyribonuclease. The surface of the overnight agar culture is flooded with 1N hydrochloric acid. Polymerized DNA is precipitated in the presence of 1N HCl and makes the medium opaque. If the organisms produce DNase it is detected by the appearance of a clear zone surrounding the growth while the rest of the plate remaining turbid.

Composition per liter:

Peptones.....20.0 g
DNA.....2.0 g
Sodium chloride.....5.0 g
Agar.....13.0 g

Final pH of the ready to use medium: 7.3 ± 0.2

Medium preparation:

Add 40.0 grams of dehydrated culture medium to 1 liter of distilled water. Heat with repeated stirring and boil for one minute to dissolve completely. Distribute and autoclave for 15 min at 121°C.

Quality specifications:

Dehydrated medium: homogeneous, light beige fine powder.

Ready to use medium: light amber and clear to slightly hazy.

Microbiological response after 18-24 hours at 37 °C:

Organism	Result
<i>Serratia marcescens</i> ATCC 8100	Positive
<i>Staphylococcus aureus</i> ATCC 25923	Positive
<i>Staphylococcus epidermidis</i> ATCC 12228	Negative

Storage:

Dehydrated medium should be stored between 10 to 25°C. Once opened, place the container in a dark, dry place. The dehydrated medium should not be used if there is any lump or the color has changed from the original.