

TINSDALE AGAR BASE

CAT N°: 1317

For the isolation and identification of *Corynebacterium diphtheriae*

FORMULA IN g/l

Proteose Peptone N°3	20.00	L-Cystine	0.24
Sodium Chloride	5.00	Bacteriological Agar	20.00

Final pH 7.4 ± 0.2 at 25°C

PREPARATION

Suspend 45.0 grams of the medium in one liter of distilled water. Mix well and dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. Distribute in 100 ml flasks. Sterilize at 121°C for 15 minutes. Cool to 45-50°C and add the Tinsdale enrichment supplement (Cat. 6034) reconstituted in 15 ml of distilled water to each flask. The prepared medium should be stored at 2-8°C. The color is amber, slightly opalescent.

The dehydrated medium should be homogeneous, free-flowing and beige in color. If there are any physical changes, discard the medium.

Tinsdale Enrichment Supplement (Cat. 6034)

(1 vial for 100 ml of the medium)

Bovine Serum.....	10 ml
Potassium Tellurite	0.0345 g
Sodium Thiosulfate.....	0.0425 g

USES

TINSDALE AGAR is a selective medium for the diagnostic of diphtheria, a disease of the upper respiratory tract.

Proteose peptone N° 3 provides nitrogen, vitamins, minerals and amino acids essential for growth. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Sodium thiosulfate provides Sulfur and L-Cystine is the indicator for H₂S production. Bovine serum is an additional source that provides growth factors for the microorganisms. Potassium tellurite is an inhibitor of most Gram negative bacteria and most of the upper respiratory tract normal flora. Due to the production of H₂S, the potassium tellurite is reduced, forming a halo surrounding the colony.

Haemophilus, *Klebsiella*, *Neisseria*, *Staphylococcus* and *Streptococcus* species grow as dark, brown colonies without halos.

Inoculate and incubate at 35 ± 2°C during 18-48 hours.

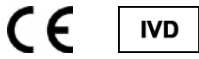
MICROBIOLOGICAL TEST

The following results were obtained from type cultures in the performance of the medium, with the supplement added, after incubation at a temperature of 35 ± 2°C and observed after 18-48 hours.

Microorganisms	Growth	Colony Color
<i>Corynebacterium diphtheriae</i> ATCC 8028 Biotype gravis	Good	Brown with halo
<i>Corynebacterium diphtheriae</i> ATCC 8024 Biotype mitis	Good	Brown with halo
<i>Streptococcus pyogenes</i> ATCC 19615	Good	Brown-Black without halo

BIBLIOGRAPHY

Isenberg, H.D. (ed) 1992 Clinical Microbiology procedures handbook. American Society for Microbiology, Washington.D.C.



STORAGE

Once opened keep powdered medium closed to avoid hydration.

