

**Specification**

Solid medium for the selective isolation of *Vibrio* spp, and *Vibrio parahaemolyticus* according to the ISO standard.

**Presentation**

20 Prepared Plates  
90 mm  
with: 21 ± 2 ml

**Packaging Details**

1 box with 2 packs of 10 plates/pack. Single cellophane.

**Shelf Life**

3,5 months

**Storage**

2-14°C

**Composition**

Composition (g/l):

Peptone from casein .....	5.00
Meat peptone.....	5.00
Yeast extract.....	5.00
Sodium citrate.....	10.0
Sodium thiosulfate.....	10.0
Ox bile.....	8.00
Sucrose.....	20.0
Sodium chloride.....	10.0
Ferric citrate.....	1.00
Thymol blue.....	0.04
Bromthymol blue.....	0.04
Agar .....	14.0

**Description /Technique**

TCBS Agar is universally accepted as the medium of choice for differential isolation of enteropathogenic vibrios, whilst inhibiting all the accompanying organisms. This formulation provides high growth of *Vibrio cholerae* and *V. parahaemolyticus*. *V. alginolyticus* and NAG-vibrios. Enterobacteria are strongly inhibited by high concentrations of citrate, thiosulfate, bile and sodium chloride.

Although some enteric bacteria may also grow in this medium, their colony morphology is quite different to that of *Vibrio* spp.

The organisms that can be confused with vibrios are some biotypes of *Proteus* and *Pseudomonas*. There are some resistant enterococci which may form exceptionally small and yellow colonies on this medium. Usually, colonies are selected or chosen and then identified with primary tests [oxidase reactions in Kligler Iron Agar MRVP Broth and antibiotic sensitivity test] before performing serological identification and phage typing.

Due to its high selectivity, the medium can be seeded with large inoculum of pathological material. Once solidified and cooled, the medium is turbid, but the observations are not affected.

This medium is very thermolabile and so it must not be autoclaved, overheated or re-melted.

Colonial appearance on TCBS Agar after 24 hours at 37°C:

- *Vibrio alginolyticus* and *Vibrio cholerae*: Large, yellow colonies.
- *Vibrio parahaemolyticus*: Small, yellow, without halo and with a green core.
- *Streptococcus faecalis*: Very small and convex, yellow with yellow halo.
- Enterobacteria generally: Small and transparent.
- *Pseudomonas*, *Aeromonas*, *Proteus*: meat medium size and blue.
- Some strains of *Vibrio cholerae* and *Vibrio parahaemolyticus* carry out delayed sucrose fermentation so they produce medium sized colonies, and are colourless or dirty yellow with a dark nucleus.

**Quality control****Physical/Chemical control**

Color : Green

pH: 8.6 ± 0.2 at 25°C

**Microbiological control**

Previous enrichment. 6±1h (ASPW). Streak isolation.

Aerobiosis. Incubation at 37 °C±1, reading after 24-48±2h

**Microorganism***Vibrio alainolyticus* ATCC® 17749*Vibrio parahaemolyticus* ATCC® 17802, WDCM 00037*Vibrio furnissii* NCTC® 11218, WDCM 00186*Escherichia coli* ATCC® 8739, WDCM 00012**Growth**

Good - opaque yellowish colonies

Good / Green to dark green

Good - opaque yellowish colonies

Inhibited

**Sterility Control**

Incubation 48 hours at 30-35°C and 48 hours at 20-25°C: NO GROWTH

Check at 7 days after incubation in same conditions

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