

# TCBS AGAR, for culture media

. Media culture or the selective isolation of *Vibrio* from a variety.

## Product Description

<b>Name :</b>	<b>TCBS AGAR</b>
<b>Catalog Number :</b>	Syn.: CJ2382, 500g European bacteriological grade
<b>Storage:</b>	Room temperature [+2-25°C] (Z) Protect from light and moisture Once opened keep powdered medium closed to avoid hydration.

## USES

TCBS AGAR is a selective medium widely used to isolate and cultivate practically all bacteria of the genus *Vibrio*, including *V. cholerae* and *V. alginolyticus*, pathogenic to humans causing cholera, choleral diarrhea or food poisoning from contaminated foods and from stool specimens. The last 2 conditions especially can be caused by ingesting raw or partially processed fish or seafood containing *Vibrio parahaemolyticus*. The only *Vibrio* that does not grow in TCBS is *V. hollisae*.

The Meat and Casein peptones provide nitrogen, vitamins, minerals and amino acids essential for growth. Yeast extract is a source of vitamins, particularly of the B-group. Sodium citrate, Sodium thiosulfate and Ox bile are the selective agents, inhibiting the Gram positive bacteria. Sodium thiosulfate provides sulphur, and Ferric citrate is the indicator for H<sub>2</sub>S production. Sucrose is the carbohydrate energy source. Bromothymol blue and Thymol blue are pH indicators. Sodium chloride promotes growth (*Vibrio* grows well in salty media). Bacteriological agar is the solidifying agent. The alkaline pH of the medium enhances the recovery of *V. cholerae*.

The suspect material (feces, vomit, rectal swabs, fish, and other food) is heavily inoculated on the surface of the plate, incubated at 35 ± 2°C for 18-24 hours. Sucrose-positive vibrios, such as *Vibrio cholerae* and *Vibrio alginolyticus*, are yellow on TCBS. Sucrose-negative ones, such as *Vibrio parahaemolyticus* and *Vibrio vulnificus*, produce blue- green colonies. Almost all *Vibrio* ferment sucrose and yield yellow colonies from the production of acid. Some types of *Proteus* (fermenters of sucrose) can form yellow colonies similar to those of *Vibrio*.

## PREPARATION

Suspend 88 grams of the medium in one liter of distilled water. Mix for 10 to 15 minutes. Dissolve by heating with frequent agitation. Boil for one minute until complete dissolution. DO NOT OVERHEAT. DO NOT AUTOCLAVE. Cool to 45-50°C, mix well and dispense into plates. The prepared medium should be stored at 8-15°C. The color is green.

The dehydrated medium should be homogeneous, free-flowing and light toasted with a green tint in color. If there are any physical changes, discard the medium.

FT-CJ2382

## FORMULA (reconstituted)

Sucrose	20.00g/L	Thymol Blue	0.04 g/L
Ox Bile	5.00 g/L	Meat Peptone	5.00 g/L
Sodium Chloride	10.00 g/L	Bromothymol Blue	0.04 g/L
Sodium Cholate	3.00 g/L	Casein Peptone	5.00 g/L
Sodium Thiosulfate	10.00 g/L	Bacteriological Agar	14.00 g/L
Ferric Ammonium Citrate	1.00 g/L	Yeast Extract	5.00 g/L
Sodium Citrate	10.00 g/L	Final pH	8.6± 0.2 at 25°C

## Handling and Storage

Store at room temperature (2-25°C). Avoid moisture.  
Once opened keep powdered medium closed to avoid hydration.

## MICROBIOLOGICAL TEST

<u>Microorganisms</u>	<u>Growth</u>	<u>Colony Color</u>
Vibrio cholerae Inaba	Good	Yellow
Vibrio cholerae Ogawa	Good	Yellow
Vibrio alginolyticus ATCC 19108	Moderate	Yellow
Vibrio parahemolyticus ATCC 17802	Good	Blue
Enterobacter cloacae ATCC 13047	Inhibited	Yellow
Proteus mirabilis ATCC 14273	Moderate	Light-blue
Escherichia coli ATCC 25922	Null	.
Pseudomonas aeruginosa ATCC 27853	Inhibited	Blue

## BIBLIOGRAPHY

Cholera Information (WHO, 1965). WHO Expert Committee on Cholera (2 and Rep. Techn., Rep. Series No. 352. 1967. Felsemfeld, Bull World Otg. 34:161. 1966. Kobayashi. T. Enomoto S. Sakasaki, R. Y. Kwajaras, S., Jap. J. Bact. 18 387 291. 196

## Related / associated products and documents

- [Cell Culture Media Components](#) <sup>[PL]</sup>  
e.g. Agar #291901, Terrific Broth #82111A, NZCYM Broth # N1473b,...

- Other cell culture and assay reagents  
[FT-N68091](#) Accumax, cells clumps dissociation reagent  
[PH-BE007a](#) CosiGel & CosiMatrix 3D Cell Culture  
See [Product highlights](#), [BioSciences Innovations catalogue](#) and [e-search tool](#).

## Ordering information

For any information, please ask at [uptima@interchim.com](mailto:uptima@interchim.com) or at Uptima / Interchim; Hotline : +33(0)4 70 03 73 06

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