

TECHNICAL SHEET

B766	TCBS AGAR (SELECTIVE)	
Formula		
Ingredients:	gms/lit.	
Peptone, special	10.00	
Yeast extract	5.00	
Sodium thiosulphate	10.00	
Sodium citrate	10.00	
Oxgall	5.00	
Sodium cholate	3.00	
Sucrose	20.00	
Sodium chloride	10.00	
Ferric citrate	1.00	
Bromo thymol blue	0.04	
Thymol blue	0.04	
Agar	15.00	
Final pH at 25°C :	8.8 ± 0.2	
Directions:		
Suspend 89.08 grams in 1000 ml distilled water. Heat to boiling to dissolve the medium completely. DO NOT AUTOCLAVE. Cool to 45-50°C and pour into sterile Petri plates.		
Principle :		
Yeast Extract and peptone, special provides the nitrogen, vitamins, and amino acids in TCBS Agar. Sodium Citrate, Sodium Thiosulfate and Oxgall are selective agents which provide an alkaline pH to inhibit gram – positive organisms and suppress coliforms. The pH of the medium is increased to enhance growth of Vibrio cholerae because this organism is sensitive to acid environments. Sucrose is a fermentable carbohydrate, and Sodium chloride stimulates growth. Sodium thiosulfate is a sulfur source and acts with Ferric Citrate as an indicator to detect hydrogen sulfide production. Thymol blue are pH indicators. Agar is a solidifying agent.		
QC Tests – (I)Dehydrated Medium		
Colour :	Light yellow to light tan	
Appearance :	Homogeneous Free Flowing powder	
(II)Rehydrated medium		
pH (post autoclaving/heating) :	8.8 ± 0.2	
Colour (post autoclaving/heating) :	Bluish green	
Clarity (post autoclaving/heating) :	Clear to slightly opalescent	
(III)Q.C. Test Microbiological		
Cultural characteristics observed after 18 – 24 hrs. at 35-37°C.		
MICROORGANISM (ATCC)	GROWTH	COLOUR OF COLONIES
Vibrio cholerae (15748)	Good - luxuriant	Yellow
Vibrio fluvialis(33809)	Good - luxuriant	Yellow
Vibrio parahaemolyticus (17802)	Good - luxuriant	Bluish green
Vibrio vulnificus (29306)	Fair to good	Greenish yellow
Escherichia coli (25922)	Inhibited	--
Proteus vulgaris (13315)	Inhibited	--
Enterococcus faecalis (29212)	Inhibited	--
Shigella flexneri (12022)	Inhibited	--
Precautions :	<ol style="list-style-type: none"> 1. For Laboratory Use. 2. Follow proper, established laboratory procedures in handling and disposing of infectious materials. 3. IRRITANT. Irritating to eyes, respiratory system and skin. Avoid contact with skin and eyes. Do not breathe dust. Wear suitable protective clothing. Keep container tightly closed. 	

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Limitations :	1. Since the nutritional requirements of organisms vary, some strains may be encountered that fail to grow or grow poorly on this medium.				
	2. Further tests are necessary for identification and confirmation of <i>Vibrio</i> spp.				
	3. On initial isolation, <i>V. parahaemolyticus</i> may be confused with <i>Aeromonas hydrophila</i> , <i>Plesiomonas shigelloides</i> and <i>Pseudomonas</i> species.				
	4. Sucrose – fermenting <i>Proteus</i> species produce yellow colonies which may resemble those of <i>Vibrio</i> .				
	5. TCBS is an unsatisfactory medium for oxidase testing of <i>Vibrio</i> spp.				
	6. A few strains of <i>V. cholerae</i> may appear green or colourless on TCBS due to delayed sucrose fermentation.				
Use:	For selective isolation and cultivation of <i>Vibrio cholerae</i> and other enteropathogenic <i>Vibrio</i> 's causing food-poisoning.				
Storage:	Dehydrated medium- below 30°C Prepared medium- Between 2 to 8°C.				
Packing :	500 gm. bottle				
Product profile:	Reconstitution	Quantity on Preparation (500g)	pH (25°C)	Supplement	Sterilization
B766	89.08 g/l	5.612L	8.8 ± 0.2	NIL	121°C /15 min.