

## Tetrathionate Broth Base (TTB)

**Product No.** CM203

### Intended Use

Used as a selective enrichment medium for the isolation of *Salmonella*. (FDA BAM, GB, SN)

**Specification** 250 g

<b>Ingredients</b>	<b>(g/L)</b>
Peptone	9.0
Beef Extract	4.5
Sodium Chloride	2.7
Calcium Carbonate	40.5
Oxgall	5.0
Sodium Thiosulfate (5H <sub>2</sub> O)	50.0
(pH 7.6± 0.2)	

### Additional Reagents

Iodine	4.0g/L
Potassium iodide	5.0g/L
Brilliant green solutions	0.01g/L

### Principle and Interpretation

Xylose is incorporated into the medium because it is fermented by practically all enterics except for the *shigellae*. Lysine is included to enable the *Salmonella* group to be differentiated from the nonpathogens. H<sub>2</sub>S indicator system, consisting of sodium thiosulfate and ferric ammonium citrate, is included for the visualization of the hydrogen sulfide produced, resulting in the formation of colonies with black centers. The nonpathogenic H<sub>2</sub>S producers do not decarboxylate lysine; therefore, the acid reaction produced by them prevents the blackening of the colonies. Sodium chloride maintains the osmotic balance. Yeast extract supplies B-complex vitamins which stimulate bacterial growth. It utilizes sodium desoxycholate as the selective agent, therefore, it is inhibitory to gram-positive microorganisms. Agar is the solidifying agent.

### Directions

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Suspend 93.5 g of the powder in 1 L of distilled water. Heat with frequent agitation and boil to dissolve completely. Autoclave at 121°C for 20 minutes. Cool to approximately 55°C. Aseptically add the one vial of iodine solutions (Cat. No. P-72) and one vial of 0.1% brilliant green solutions (Cat. No. P-73) to 100 mL base. Mix well and dispense aseptically in sterile tubes.

### Precautions

No

### Quality Control

Microorganisms	Inoculum (CFU)	Reference Medium	Method	Incubation	Growth (Productivity Ratio : PR)
<i>Salmonella Typhimurium</i> ATCC 14028	50-250	TSA	quantitative	36°C±1°C 18h±24h	PR≥0.5 Red With black centers
<i>Salmonella Typhimurium</i> CICC 25045 [CMCC(B) 50976]					
<i>Shigella flexneri</i> CMCC 51572	50-250	TSA	quantitative	36°C±1°C 18h±24h	PR≥0.5 Red
<i>Staphylococcus aureus</i> ATCC 6538	-	-	Semi-quantitative	36°C±1°C 18h-24h	G≤1
<i>Staphylococcus aureus</i> CICC 25018 [CMCC(B) 26305]					

### Storage Conditions

Keep container tightly closed and store in a cool dry place.

### Shelf Life

3 years.

### Related Products

Product No.	Product Name	Specification
CM219	Xylose Lysine Desoxycholate (XLD) Agar	250 g
CM219-07	Xylose Lysine Desoxycholate (XLD)	100 mL×10
PB030A	Xylose Lysine Desoxycholate (XLD)	20 Plates

*For laboratory use in industry or R&D purpose. Not for drug, household or other uses.*