

Tetrathionate Broth Base APHA

Use and description:

TBB is used with iodine for recovery of Salmonella spp. It is used as a selective enrichment for the cultivation of salmonella spp. that may be present in low qty . Salmonella spp. cause many types of infections .

Enzymatic digest Casein and animal tissue provides nitrogen, carbon , vitamins and amino acids. Medium selectivity is accomplished by the combination of sodium thiosulphate and tetrathionate which suppress intestinal organisms. Bile salts makes the medium selective suppresses coliform bacteria and with inhibition of Gram + organisms.

Composition per liter g/l :

Enzymatic Digest of Casein	2.50
Animal tissue	2.50
BileSalts	1.0
Sodium Thiosulphate	30.0
Sodium Carbonate	10.0

Final pH of the ready to use medium: 8.4±0.2 at 25.0 °C

Medium preparation:

Add 46 g of the medium to 1000ml of distilled water . Cool to 45C and add 20 ml of iodine potassium iodide solution to the prepared TTB.

Do not reheat after adding iodine solution

Supplement :

Iodine-potassium-iodide solution composition per 20.0 ml

KI	5.0g
Iodine	6.0 g

Quality specifications:

1. The powder is homogeneous, free flowing and white
2. Ready to use medium: milky white to slightly yellow opaque.

Microbiological response after 18-24 hours at 35°C:

Organism	inoculum	Result
Escherichia coli ATCC25922	-1000	Inhibited
Salmonella arizonaea ATCC13314	10-300	Growth
Salmonella typhimurium ATCC 14028	10-300	Growth
Shigella flexneri ATCC 12022	-1000	Inhibited

Storage:

Store the sealed bottle containing the dehydrated medium at 25 to 30.0 °C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed