

MKTTn Broth

Catalog : HB4199-2

MKTTn(MULLER -KAUFFMANN Tetrathionate Novobiocin)) Broth is used for selective enrichment cultivation of salmonella in food.

Approximate Formula:

Ingredients	gm./liter
Pancreatic Digest of Casein	8.6
Beef Extract	4.3
Sodium Chloride	2.6
Calcium Carbonate	38.7
Bile Salt	4.78
Sodium Thiosulfate	30.5
Brilliant Green	0.0096
Novobiocin	0.04
Final pH8.2±0.2 at 25℃	

*Adjusted and/or supplemented as required to meet performance criteria.

Directions:

Suspend 89.5g of the powder in 1000ml of deionized or distilled water. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder. Cool rapidly, add 20ml Iodine-potassium iodide solution(Dissolve 5g of potassium iodide in 2ml of distilled water, then add 4g of iodine,add distilled water to make up to 20ml.). Mix well. Dispense 10ml aliquots into tubes. DO NOT AUTOCLAVE.

Principle and Interpretation:

Muller Kauffmann Tetrathionate Broth Base contains pancreatic digest of casein and beef extract as sources of carbon, nitrogen, vitamins and minerals. Bile salt and brilliant green are selective agents which inhibit gram-positive and other gram-negative organisms. Calcium carbonate is the buffering agent. Sodium thiosulfate is a source of sulfur.

Appearance:

Dehydrated medium is a free-flowing yellowish powder. The prepared medium is a kind of green liquid with white precipitate.

Precautions:

This medium is for laboratory use only. Dried medium which is past shelf life, caking or color variation cannot be used.

Storage conditions and Shelf life:

Buffered Sodium Chloride Peptone Solution pH7.0 must be stored tightly capped in the original container at 5-30℃. The dehydrated medium has a shelf life of 5 years from date of manufacturing. Prepared medium may be stored, out of direct light at 2-8℃.

Quality control:

Prepare the culture medium as per label directions. Inoculate and incubate at 37℃ for 24±3 h.

Microorganism	Strains Number	Inoculum (CFU)	Growth
<i>Escherichia coli</i>	ATCC 25922	100-1000	Inhibited
<i>Salmonella typhimurium</i>	ATCC 14028	10-100	Luxuriant
<i>Staphylococcus Aureus</i>	ATCC 6538	100-1000	Inhibited

References:

1. Muller. 1923. C. R. Soc. Biol. (Paris) 89:434.
2. Kauffmann. 1935. Ztschr. F. Hyg. 117:26.
3. Public Health Laboratory Service. 1974. Monograph Series No. 8. Public Health Laboratory Service,London, England