

MULLER KAUFFMANN TETRATHIONATE BROTH

Ready to use tubes

INTENDED USE

Ready to use liquid medium for the enrichment of *Salmonella* spp. in foodstuff and other specimens.

TYPICAL FORMULA (g/l)

Tryptone	7.00
Soy Peptone	2.30
Sodium Chloride	2.30
Calcium Carbonate	25.00
Sodium Thiosulphate	40.70
Bile Salts	4.75
Jodine	3.8 g
Potassium Jodide	4.75 g
Brilliant Green	0.0095 g

DESCRIPTION

Muller Kauffmann Tetrathionate Broth, developed by Muller (1923) was later modified by Kauffmann with the addition of brilliant green to inhibit the growth of *Proteus* spp., and bile salts to increase the recovery of *Salmonella* spp.

Muller Kauffmann Tetrathionate Broth is recommended for enrichment of *Salmonella* spp. in food, water, milk, ice cream and pasteurised egg-base products.

The medium is usually used together with Selenite Cystine Broth or Rappaport Vassiliadis Soy (RV) Broth and this selective enrichment is preceded by a non-selective enrichment in Buffered Peptone Water. The recommended incubation temperature of the selective enrichment with Muller Kauffmann Tetrathionate Broth is 43°C.

TECHNIQUE

Foodstuffs - Transfer two aliquots of 1ml of the pre-enriched culture in Buffered Peptone Water into a tube of Muller Kauffmann Tetrathionate Broth.

Incubate the inoculated Muller Kauffmann Tetrathionate Broth flasks at 43°C for 24 hours.

Using the cultures obtained in Muller Kauffmann Tetrathionate Broth inoculate by means of a 3mm loop, two large-size Petri dishes or four 90mm Petri dishes containing Brilliant Green Agar Modified (Cat. N° 401256). Proceed in the same way with a second plating medium – e.g. Chromogenic Salmonella Agar (cat. N° 405350), or other suitable selective *Salmonella* plating-out medium chosen by the laboratory.

Clinival specimens - For faeces examination, inoculate test tubes with 1g of faeces, or 1ml of faecal suspension. It is common practice to emulsify 2-3g of solid specimen to 15ml of saline solution or Transfec (REF. 223280) and then withdraw approximately 1ml of the supernatant and inoculate 10ml of Muller Kauffmann Tetrathionate Broth.

STORAGE

Store at 2-8° away from direct light - When stored as directed the tubed media remain stable until the expiry date shown on the label. Do not use beyond stated expiry date. Media should not be used if there are any signs of deterioration, discoloration or contamination.

PRECAUTIONS

For *in vitro* diagnostic use only. Observe approved biohazard precautions and aseptic techniques. To be used only by adequately trained and qualified laboratory personnel. Sterilize all biohazard waste before disposal.

REFERENCES

- ISO 6785 Milk and milk products - Detection of Salmonella 1st Ed. 1985
- Muller, L. (1923) C.R. Soc. Biol. (Paris) **89**, 434-443
- Kauffmann, F. (1935) Z.f. Hyg. **117**, 26-32

PACKAGING

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M.K. Tetrathionate Broth

20x 10 ml ready to use tubes