

MULLER KAUFFMANN BROTH

Basal medium for *Salmonella* selective enrichment from water, foodstuffs and fecal samples.

TYPICAL FORMULA	(g/l)
Tryptone	7.0
Soy Peptone	2.3
Sodium Chloride	2.3
Calcium Carbonate	25.0
Sodium Thiosulphate (anhydrous)	40.7
Bile Salts N°3	4.75

DIRECTIONS

Suspend 82.1 g of powder in 1 liter of distilled or deionized water. Boil to dissolve completely. DO NOT AUTOCLAVE. Cool to 45-50 °C. Add 19 ml of iodine solution (20 g iodine and 25 g potassium iodine in 100 ml water) and 9.5 ml of Brilliant Green solution 0.1%. Dispense into sterile tubes.

DESCRIPTION

MULLER KAUFFMANN BROTH is used for enriching *Salmonella* from water, foodstuffs and fecal samples prior to selective isolation. The addition of brilliant green and bile salts suppress commensal organisms and thus improve the isolation of salmonellae. Novobiocin at 40 mg per liter can be added to suppress the growth of *Proteus* species.

TECHNIQUE

Homogenize 25 g of sample in a sterile blender with 225 ml of Buffered Peptone Water. Incubate the homogenized in a flask at 37 ± 0.1 °C for 16-20 hours. Transfer 10 ml of sample to 100 ml of Mueller Kauffmann Broth and incubate at 42-43 °C overnight. *Salmonella* spp will produce red colonies with good growth after an incubation on a selective medium at 36 ± 1 °C for 18-24 hours.

QUALITY CONTROL

Dehydrated medium

Appearance: free-flowing, homogeneous.

Color: off-white to light beige.

Prepared medium

Appearance: heterogeneous, with precipitate.

Color: very pale green.

Incubation conditions: 42 ± 1 °C for 18-24 hours.

Microorganism	ATCC Growth	Characteristics
<i>Salmonella typhimurium</i>	14028 good	red colonies
<i>Salmonella senftenburg</i>	10384 good	red colonies
<i>Escherichia coli</i>	25922 none to poor	
<i>Proteus vulgaris</i>	27853 none to poor	

PERFORMANCE AND LIMITATIONS

The complete medium is unstable and should be used immediately. It may be stored at 2-8 °C in the dark for no more than 7 days. Other organisms than *Salmonella*, such as *Morganella morganii* and some Enterobacteriaceae, can grow in this medium, because of nutritional requirements and inhibitory characteristics of the organisms themselves. The medium is not suitable for the growth of *S. typhi*, *S. sendai*, *S. pullorum*, *S. gallinarum*.

STORAGE

The powder is very hygroscopic: store the powder at 10-30 °C, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared tubes at 2-8°C.



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REFERENCES

1. Kauffmann, F. (1935). Ztschr. F. Hyg. **117**: 26-32.
2. International Organization for Standardization. Geneva. (1974). (Draft International Standard ISO/DIS 3565).
3. Jeffries, L. (1959). J. Clin. Path. **12**:568-570.

PRESENTATION









Product	REF	
MULLER KAUFFMANN BROTH (6.0 l)	610035	500 g
MULLER KAUFFMANN BROTH (1.2 l)	620035	100 g
MULLER KAUFFMANN supplement Iodine Brilliant Green 0.1%	80047	2 x 50 ml 1x 50 ml

TABLE OF SYMBOLS

LOT Batch code	 Caution, consult accompanying documents	 Manufacturer	 Contains sufficient for <n> tests	IVD <i>In Vitro</i> Diagnostic Medical Device
REF Catalogue number	 Fragile, handle with care	 Use by	 Temperature limitation	 Keep away from heat source



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