

Lauryl Sulfate Tryptose Broth Modified (mLST)

Selective liquid medium for the enrichment of *Cronobacter sakazakii* according to ISO 22964

TYPICAL FORMULA	(g/l)
Tryptose	20.00
Lactose	5.00
Dipotassium Phosphate	2.75
Monopotassium Phosphate	2.75
Sodium Chloride	34.00
Sodium Lauryl Sulfate	0.10
Vancomycin	0.01
Final pH 6.8 ± 0.2 at 25°C	

DESCRIPTION

Lauryl Sulfate Tryptose Broth Modified (mLST) is a selective liquid medium recommended for the enrichment of *Cronobacter sakazakii* in infant milk products according to ISO 22964.

PRINCIPLE

Tryptose provides nitrogen, vitamins, minerals and amino acids essential for growth. Lactose is the fermentable carbohydrate. Potassium phosphates are the buffering agents. Sodium chloride in addition to supply essential electrolytes for the osmotic balance, at a so high concentration restricts the growth of other members of the Enterobacteriaceae. Also sodium lauryl sulfate acts as selective agent inhibiting organisms other than coliforms while Vancomycin acts on Gram-positive bacteria inhibiting proper cell wall synthesis.

TECHNIQUE

Homogenise the sample diluted 1:10 in Buffered Peptone Water (ref. 24099) and incubate at 37 ± 1°C for 18 ± 2 hours. Transfer 0.1 ml of the enrichment culture into 10 ml of Lauryl Sulfate Tryptose Broth Modified (mLST) (ref. 24452) and incubate at 44 ± 0.5°C for 24 ± 2 hours.

INTERPRETATION OF RESULTS

Take a 10 µl loop from turbid tubes, streak onto the surface of the Enterobacter (*Cronobacter*) *sakazakii* Isolation Agar plate (ref. 11623), invert and incubate the plates at 44 ± 1°C for 24 ± 2 hours. Examine for the presence of typical colonies of presumptive *Cronobacter sakazakii*. Typical colonies are small to medium sized, green to blue-green coloured. Non-typical colonies are often slightly transparent and violet coloured. Confirm typical colonies plating on Tryptic Soy Agar (ref. 10037) and incubating at 37 ± 1°C for 18-24 hours. In this medium *Cronobacter sakazakii* colonies present yellow color. Then, proceed with required biochemical confirmation tests.

STORAGE AND TRANSPORT CONDITIONS

2-8°C away from light, until the expiry date on the label. However, our stability studies have shown that the transport at 18-25°C for 4 days, or at 35-39°C for 48 hours, does not alter in any way the performance of the product. Eliminate if signs of deterioration or contamination are evident.

WARNING AND PRECAUTIONS

The product does not contain hazardous substances in concentrations exceeding the limits set by current legislation and therefore is not classified as dangerous. It is nevertheless recommended to consult the safety data sheet for its correct use. The product must be used only by properly trained operators.

DISPOSAL OF WASTE

Disposal of waste must be carried out according to the national and local regulations in force.

REFERENCES

1. ISO 22964:2006 Milk and milk products detection of *Enterobacter sakazakii*.
2. Guillame-Gentil O., Sonnard V., Kandahai M.C., Mauragg J.D., and Jootsen H.A. A simple Rapid Cultural Method for Detection of *Enterobacter sakazakii* in environmental samples. J Food Prot. 68 (1), 2005, 64-69.



PRODUCT SPECIFICATIONS

NAME

Lauryl Sulfate Tryptose Broth Modified (mLST)

PRESENTATION

Ready-to-use tubes containing 10 ml of medium

STORAGE

2-8°C

PACKAGING

Ref.	Content	Packaging
24452	20 tubes x 10 ml	20 tubes in cardboard box

pH OF THE MEDIUM

6.8 ± 0.2

USE

Lauryl Sulfate Tryptose Broth Modified (mLST) is a selective liquid medium recommended for the enrichment of *Cronobacter sakazakii* in infant milk products according to ISO 22964

TECHNIQUE

Refer to technical sheet of the product

APPEARANCE OF THE MEDIUM

Appearance: refrigerated broth becomes cloudy or forms a precipitate; media will clear when kept to room temperature
Colour: clear amber

SHELF LIFE

1 year

QUALITY CONTROL

- Control of general characteristics, label and print
- Sterility control
7 days at 22 ± 1°C, in aerobiosis
7 days at 36 ± 1°C, in aerobiosis
- Microbiological control
Inoculum for productivity: ≤100 CFU
Inoculum for selectivity: >10³ CFU
Incubation Conditions: 24 ± 2 h at 44 ± 0.5°C

Microorganism

<i>Escherichia coli</i>	ATCC® 25922	Good
<i>Escherichia coli</i>	ATCC® 8739	Good
<i>Cronobacter sakazakii</i>	ATCC® 29544	Good
<i>Staphylococcus aureus</i>	ATCC® 25923	Inhibited
<i>Enterococcus faecalis</i>	ATCC® 29212	Inhibited

Growth

TABLE OF SYMBOLS

 Batch code	 Do not reuse	 Manufacturer	 Use by	 Fragile, handle with care
 Catalogue number	 Temperature limitation	 Contains sufficient for <n> tests	 Caution, consult instructions for use	



LIOFILCHEM® S.r.l.

Via Scozia, Zona Ind.le - 64026, Roseto degli Abruzzi (TE) - ITALY
Tel +39 0858930745 Fax +39 0858930330 Website: www.liofilchem.net E-mail: liofilchem@liofilchem.net