17123 Elliker Broth (Lactobacillus Broth) NutriSelect® Plus

For culturing streptococci and lactobacilli of importance in the dairy industry.

Composition:

Ingredients	Grams/Litre
Casein enzymic hydrolysate	20.0
Yeast extract	5.0
Gelatin	2.5
Dextrose	5.0
Lactose	5.0
Saccharose	5.0
Sodium chloride	4.0
Sodium acetate	1.5
Ascorbic acid	0.5

Final pH 6.8 +/- 0.2 at 25°C

Store granulated media between 10-30°C in tightly closed container and the prepared medium at 15-25°C. Avoid freezing and overheating. Once opened keep powdered medium closed to avoid hydration. Use before expiry date on the label.

Appearance(color): Faint yellow and Faint beige & Faint Brown, free flowing powder
Color and Clarity: Light amber coloured, clear solution without any precipitate

Directions:
Suspend 48.5 g in 1 litre distilled water. Boil to dissolve the medium completely. Dispense as desired. Sterilize by autoclaving at 121°C for 15 minutes.

Principle and Interpretation:
Lactic acid bacteria found in dairy products are a diverse group consisting primarily of *Streptococcus, Lactococcus, Leuconostoc* and homofermentative and heterofermentative *Lactobacillus species*. Testing for lactic acid bacteria in dairy products may be useful for various reasons (1). These include determining the cause of acid defects in dairy products, evaluating lactic starter cultures, and controlling the quality of cured cheese, cultured milks, and uncultured products. (1)

Elliker Broth, recommended by APHA, is used for culturing streptococci and lactobacilli in the dairy industry (1). Elliker, Anderson and Hannesson developed Elliker Broth (2), which was further modified by McLaughlin (3)

Tryptone and gelatin provide nitrogen to the organisms. Yeast extract is the vitamin source in this media. Dextrose, lactose and saccharose are the fermentable carbohydrates and hence the sources of energy. Sodium chloride maintains the osmotic balance of the medium. With the addition of ascorbic acid, the medium becomes slightly acidic which supports the growth of lactobacilli. Sodium acetate has an inhibitory effect on gram-negative bacteria and molds, without affecting the growth of lactobacilli.

Cultural characteristics observed after an incubation at 35-37°C for 24-48 hours.

Organisms (ATCC/WDCM)	Inoculum (CFU)	Growth
Lactobacillus casei (7469/00101)	50-100	+++
*Lactococcus lactis (*19435/00016)	50-100	+++
Lactobacillus plantarum (8014/-)	50-100	+++
Streptococcus cremoris (19257/-)	50-100	+++
Streptococcus thermophilus (14485/-)	50-100	++

References:

1. Wehr and Frank (ed.). 2004. Standard methods for the examination of dairy products. 17th ed. American Public Health Association, Washington, D.C.
2. Elliker P. R., Anderson A. W. and Hannesson G., 1956, J. Dairy Sci., 39:1611
3. McLaughlin, 1946, J. Bacteriol., 51:560.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.