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Multipathogen enrichment medium MKZ0002

500 gr

Store at Room Temperature

Intended use

The Multipathogen enrichment medium could be used for the enrichment of *Salmonella* spp., *L. monocytogenes* and *E. coli* O157 in a food sample, prior to isolation procedures.

Introduction

Salmonella spp, *Listeria monocytogenes*, and *Escherichia coli* O157 are known as major concern food-borne pathogens because of their continued association with highly popular foods such as dairy products. Above all, these pathogens have very high prevalence and mortality rates and have been involved in several recent outbreaks (Lynch et al. 2006).
Detection of foodborne pathogens on a single-assay platform provides results on the presence of pathogens in a single experiment. Though the sensitivities of many modern detection methods have improved significantly, such as nucleic acid amplification (Settanni and Corsetti, 2007). An enrichment step is still necessary to increase the target pathogens concentration, since they are often present in very low numbers in food samples.
Currently, there is no single selective enrichment medium that can support the growth of *E. coli* , *L. monocytogenes* and *Salmonella* concurrently. Multiphatogen enrichment medium broth was formulated to allow the simultaneous growth of the mentioned species. This suggests that this medium, coupled with a suitable detection system, can facilitate the rapid detection of multiple pathogens concurrently from a food product, thus reducing the overall cost and time of pathogen testing.

Product description

The Multipathogen enrichment medium provides nutrients and stable pH conditions to improve the recovery of *L. monocytogenes*, *Salmonella* spp. and *E. coli* O157 cells.

Storage

Store the bottle containing the dehydrated medium at 2 - 30°C. Once opened and recapped, place container in a low humidity environment at the same storage temperature.

Preparation

1. Suspend the powder 47g in 1 L of purified water: Mix thoroughly.
2. Heat with frequent agitation and boil for 1 minute to completely dissolve the powder.
3. Autoclave at 121°C for 15 minutes.

Procedure

Prepare a sample using a 1:10 dilution of not less than 1g of the product to be examined, mix and incubate at 35°C for 18±2 hours. **For food sample we recommend to test 25g in presence of 225ml of Multipathogen enrichment medium.**

References

Lynch, M., J. Painter, R. Woodruff, and C. Braden. 2006. Surveillance for foodborne-disease outbreaks—United States, 1998-2002. MMWR Surveill. Summ. 55:1-42.

Settanni, L., and A. Corsetti. 2007. The use of multiplex PCR to detect and differentiate food- and beverage-associated microorganisms: a review. J. Microbiol. Methods 69:1-22.