

OK Medium: A Fluorogenic Selective and Differential Medium for Isolation of *Enterobacter sakazakii*

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Technology description

Unmet Need: Method to isolate and differentially identify a single type of bacteria from a mixture. Due to the extensive quantity and variety of bacteria present in the clinical environment, it is desirable to have methods for isolating and differentially identifying a single type of bacteria from a mixture of bacteria. A common approach to identifying bacteria is based on their appearance and/or growth characteristics in different types of culture media. To aid in bacterial isolation and identification, a growth medium may be both "selective" and "differential". A selective medium is designed to suppress the growth of some microorganisms while allowing the growth of others (i.e., they select for certain microbes). A differential medium is designed to allow the growth of more than one microorganism of interest, but with visually or morphologically distinguishable colonies.

The Technology: A Fluorogenic Selective and Differential Medium for Isolation of *Enterobacter sakazakii*. *Enterobacter sakazakii* was implicated in severe neonatal infections such as meningitis and sepsis. Though the natural habitat of *E. sakazakii* remains unknown, dried infant formula has been identified as the source of *E. sakazakii* infections. The "OK Medium" was developed to facilitate the isolation and detection of *E. sakazakii* using a fluorogenic compound. Tests of the "OK medium," as formulated and optimized, indicate that 100% of the fluorescent colonies were confirmed to be *E. sakazakii*, while none of the non-fluorescent colonies were identified as *E. sakazakii*. The test has thus been proven to be an excellent indicator of *E. sakazakii* contamination in infant formula.

Application area

- Isolation and identification of various microorganisms with α -glucosidase activity, specifically *E. sakazakii*.

Advantages

- Provides an effective and useful method for the isolation and detection of microorganisms with α -glucosidase activity and ensure efficient and contamination-free from other types of bacteria.

Institution

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