Rapid Detection of *Clostridium perfringens* by a New Chromogenic Media

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**ABSTRACT**

In contrast to vegetative cells like coliforms (e.g., *E. coli*), *C. perfringens* is a non-motile, non-sporulating, non-flagellated anaerobic, spore-forming rod-shaped bacterium (1,2). It is widespread in the environment and also found in the gastrointestinal tracts of warm-blooded animals. It is one of the most commonly reported foodborne pathogens in canned foods (germination of endospores) and in water (surface water). The natural contamination source is human and animal faeces mainly with *C. perfringens* in water and food samples. *C. perfringens* produces endospores on exposure to high temperatures and viable vegetative cells after adequate cooling. This characteristic makes the bacterium a common cause of foodborne illness.

**RESULTS AND DISCUSSION**

A new selective chromogenic media for *C. perfringens* has been developed. The media provides the isolation and enumeration of *C. perfringens* in water samples. The media is based on *m*-CP Agar and ChromoSelect TSC Agar media for enumerating strains of *C. perfringens*. The media is effective for detection of *C. perfringens* in food and water samples. The media is also used as detection and differentiation targets. It is also notable that the media provides the isolation of *C. perfringens* from water samples.

**CONCLUSION**

The new chromogenic media developed is effective for detection of *C. perfringens* in food and water samples. The media provides the isolation and enumeration of *C. perfringens* in water samples. The media is effective for detection of *C. perfringens* in food and water samples. The media is also used as detection and differentiation targets. It is also notable that the media provides the isolation of *C. perfringens* from water samples.