

LISTERIA MONOCYTOGENE STRAINS CONTAINING ANTIBIOTIC RESISTANCE AND GREEN-FLUORESCENT PROTEIN MARKERS

Technology Summary

Listeria monocytogenes (Lm) is a foodborne bacterial pathogen that is the causative agent of listeriosis in humans and animals. Lm illness is often limited in healthy individuals but virulent Lm strains can cause serious illness, including death, amongst immunocompromised individuals.

To aid in the research and detection of Lm, investigators at the FDA developed Lm control strains using the three major disease-causing serotypes, 1/2a, 1/2b, and 4b. The strains were identified by their antibiotic resistance and a green fluorescent protein (GFP) tag was introduced to allow confirmation and separation of the control strains from the background flora.

These strains can potentially be used for Lm research and product development around detection and routine analysis of food, clinical, and environmental samples.

Potential Commercial Applications

- Research tool to study Lm
- Use in the development of diagnostics for detection and analysis of Lm

Competitive Advantages

- Natural occurring strains with antibiotic-resistance and GFP tag

Development Stage: Research Materials

Inventors:

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Publications:

- Sahu, NS., et. al. Growth potential of Listeria monocytogenes in artificially contaminate celery and chicken salad. Food Control 73 (2017) 1229-1236. [Here](#)

Product Area: listeria, monocytogenes, pathogen, celery, contaminant, chicken, vaccine development

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