

TECH OFFER

Proprietary Postbiotic Strain (Heat-Killed *Lactobacillus Paracasei*) For Immune Health



KEY INFORMATION

TECHNOLOGY CATEGORY:

Foods - Ingredients

Healthcare - Pharmaceuticals & Therapeutics

Personal Care - Nutrition & Health Supplements

TECHNOLOGY READINESS LEVEL (TRL): **TRL9**

COUNTRY: **SINGAPORE**

ID NUMBER: **TO174650**

OVERVIEW

Consumers today are much more proactive in preserving their health with natural approaches. They have turned their interests into functional food and beverage as they opt for prevention over treatment. Moreover, the COVID-19 pandemic has transformed consumer attitudes towards health and immunity, hence the impact on health consciousness is long-term.

With growing awareness, consumers are connecting the dots between gut health and immune health. As such, appetite is growing for products such as functional food and beverage that contain probiotic ingredients to support the gut and immune system. However, not all probiotics are able to withstand the rigors of the manufacturing process for a wide range of functional food and beverage formats.

A leading Japanese dairy company has developed a postbiotic ingredient that resolves formulation challenges. The proprietary postbiotic ingredient is a clinically proven heat-killed strain of *Lactobacillus paracasei* that possesses excellent immune-enhancing

activity. It can be incorporated into a wide variety of products irrespective of their processing method or form. Since it is an inactivated strain, it is easy to use in accomplishing innovative formulations.

The company is seeking collaborations with food and beverage product manufacturers that are interested in enhancing their product offerings with additional health benefits in forms of R&D collaborations or cocreations to develop novel functional food and supplement products incorporated with this proprietary *L. paracasei* strain.

TECHNOLOGY FEATURES & SPECIFICATIONS

The proprietary postbiotic strain of *Lactobacillus paracasei* stands out from the crowd with its highest capacity to induce the production of interleukin-12 (IL-12) – a potent activator of innate and adaptive immunity. It possesses scientifically-backed immune-enhancing activity.

The proprietary postbiotic has been clinically proven to be effective in the prevention of common colds in healthy adults and in improving the responsiveness of influenza vaccinations in the elderly. Backed by numerous clinical studies, the proprietary postbiotic ingredient serves as a unique functional ingredient in the immune health space. Manufacturers can meet consumer demand for a variety of foods and beverages by innovating with it. The proprietary postbiotic ingredient has gained great recognition and popularity in Japan. To date, it has been widely used by many domestic food and beverage manufacturers, restaurants and retailers in over a thousand types of food, beverages, and supplement products.

POTENTIAL APPLICATIONS

The proprietary postbiotic strain of *L. paracasei* was developed to address the increased interests in immune health. Its safety, clinical efficacy, and mechanism of action are well-researched. This proprietary postbiotic strain can provide versatile and lasting solutions to supplement, food and beverage manufacturers with innovative functional products.

As this is a heat-killed strain, the proprietary postbiotic strain does not pose stability issues that traditional probiotics face. It is highly stable to heat, pH, and other conditions, thereby expanding the opportunities for innovative applications such as functional confectionery, baked goods, protein bars, cereals, ice cream, energy drinks, powdered beverages, bottled beverages, and tea/juice, etc.

MARKET TRENDS & OPPORTUNITIES

According to Mintel, 72% of global consumers want to have immunity-supporting products in food and drink form. Among these, postbiotics are gaining traction in the immunity space as consumers are more aware of the connection between the gut and immune system. There are huge opportunities for innovating functional food and beverage with a postbiotic ingredient that has immune health benefits.

UNIQUE VALUE PROPOSITION

The proprietary postbiotic strain of *L. paracasei* has acquired self-affirmed GRAS status since 2018 and it is Halal- and Kosher-certified. With the well-consolidated regulatory oversight, quality assurance, and scientifically backed safety and clinical efficacy, this proprietary postbiotic strain is a feasible solution for food and beverage manufacturers as it can meet consumer demand for immune-supporting functional products.