

Launch of the "iMUSE" Functional Food brand

Six new products with *Lactococcus lactis* strain Plasma registered as functional foods with immune support function – A first in Japan

TOKYO, Monday September 28, 2020 – Kirin Holdings and Kirin Beverage jointly announced today the launch of six new products containing *Lactococcus lactis* strain Plasma. These six iMUSE-branded products that utilize *Lactococcus lactis* strain Plasma were registered as Foods with Functional Claims with Japan’s Consumer Affairs Agency (CAA). When registration is accepted by the CAA, labeling of “functional claims” (usually health benefits) on products becomes possible. This registration provides the value of reliability and reassurance for consumers when choosing products.

Kirin Holdings will launch *Kirin iMUSE Professional Lactococcus lactis strain Plasma supplement* in early November and *Kirin iMUSE Lactococcus lactis strain Plasma supplement (15-day supply)* on November 11. *Kirin iMUSE Lactococcus lactis strain Plasma supplement (7-day supply)* will be launched on November 24. Kirin Beverage will launch the *Kirin iMUSE Yogurt Taste*, *Kirin iMUSE Lemon**1 and *Kirin iMUSE Water* beverages on November 24.

*1: 1% fruit juice

● Background

The *Kirin Group Vision 2027* sets out the broad goal of creating value across the world of food & beverages to pharmaceuticals and becoming a global leader in CSV*2. To augment the Group’s existing Food & Beverages domain and Pharmaceuticals domain, the Group has launched a new Health Science domain to help people stay fit and healthy by leveraging advanced fermentation and biotechnology the Group has amassed over the years.

*2: Creating Shared Value. Combined added value for consumers as well as for society at large.

One of these Health Science products is the iMUSE brand, which was developed based on the Kirin Group's 35 years of immunological research, and has been rolled out across the Kirin Group to offer consumers a new product that supports health. August cumulative sales of the iMUSE brand and other products using *Lactococcus lactis* strain Plasma more than doubled compared to the previous year, and they are expected to continue to perform well through 2020.

● iMUSE’s CSV Proposition

By releasing six products that have been registered as functional food products with immune function labeling, the Kirin Group will be able to provide customers with a sense of reassurance when selecting a product. In response to the recent rise in customer awareness of physical health, the Kirin Group aims to contribute to the maintenance of people's health - one of the major challenges facing society - by developing products such as supplements and beverages that are easily accessible as well as support the maintenance of immune function in healthy people.

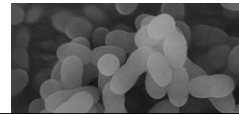


– more –

● **What is *Lactococcus lactis* strain Plasma?**

Kirin's proprietary *Lactococcus lactis* strain Plasma

The *Lactococcus lactis* strain Plasma is a type strain of *Lactococcus lactis*, which is a natural lactic acid bacterium mainly used for the fermentation of cheese and yogurt. The *Lactococcus lactis* strain Plasma is a product of joint research by Kirin Holdings, Koiwai Dairy Products, and Kyowa Hakko Bio, and a number of relevant papers have been published and many presentations have been given at medical societies in cooperation with medical schools and research institutions.

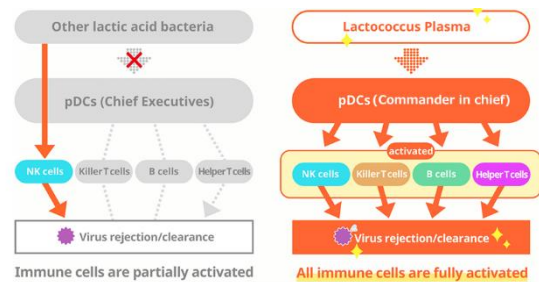


Lactococcus lactis strain Plasma

A world first!³ Lactic acid bacteria that work on plasmacytoid dendritic cells (pDC)

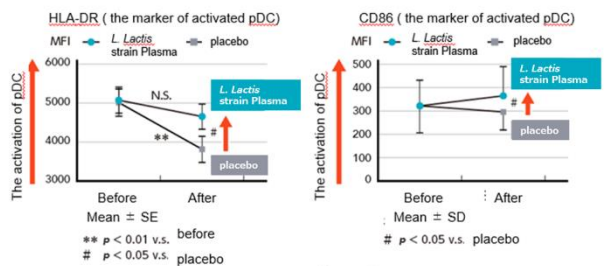
Plasma lactic acid bacteria activates plasma cytoid dendritic cells (pDC), which are the "commander-in-chief" of the immune system.

The instructions and commands of the activated pDCs activate the entire immune cell and the defense system against external enemies.



*3: Lactobacillus acidophilus was the first lactobacillus reported to work on pDC in humans (based on information published in PubMed and the WEB of the Central Medical Journal).

Plasmacytoid dendritic cells (pDC) can be activated by ingesting *Lactococcus lactis* strain Plasma for two weeks or more!



[Outline]
 ● Participants: Healthy adults (n = 38)
 ● Test foods: Yogurts containing or not containing (placebo) 100 billion of *L. lactis* strain Plasma
 ● Intake period: 4 weeks
 Clinical immunology (2013) 149, 509-518

[Outline]
 ● Participants: University students belonging to a sports club (n = 51)
 ● Test foods: Capsules containing or not containing (placebo) 100 billion of *L. lactis* strain Plasma
 ● Intake period: 2 weeks
 Journal of the International Society of Sports Nutrition (2018) 15:39

※ Typical two results are shown as sample in articles included in the systematic review. These results are not from the clinical trials using final products.

KIRIN brings joy to society by crafting food and healthcare products inspired by the blessings of nature and the insights of our customers.

● **Container and Packaging Label Information (for all six products)**

This product contains *Lactococcus lactis* strain Plasma. It has been shown to support maintenance of the immune system in healthy individuals by stimulating pDC (plasmacytoid dendritic cells).

[Functional Ingredient]




Lactococcus lactis strain Plasma (100 billion/day)

Notes:

- 1 Diet is based on staple foods, main dishes, and side dishes to balance the diet.
- 2 These products have not been approved by the government.
- 3 These products are not intended to diagnose, treat or prevent disease.

– more –

Overview of iMUSE three new supplement products

Product names	<i>Kirin iMUSE professional plasma lactic acid bacteria</i>	<i>Kirin iMUSE Lactococcus lactis strain Plasma supplement</i>	
Release Date	Early November 2020	November 11, 2020	November 24, 2020
Content (1 bag)	30 capsules (2 capsules per day)	60 capsules (15-day supply, 4 capsules per day)	28 capsules (7-day supply, 4 capsules per day)
Price (MSRP excluding sales tax)	2,200 yen	1,833 yen	905 yen
Distributor	Kirin Holdings Company, Limited		
Product Features	<p>A yogurt-flavored (milk-free) chewable tablet without water that is easy to keep on a daily basis, created on the advice of medical professionals and other experts. It contains “barrier vitamin C*.”</p> <p>*This product contains 20% barrier vitamin C. Compared to regular vitamin C, barrier vitamin C, (L-ascorbic acid 2-glucoiside) which is resistant to heat, light, and oxidation.</p>	<p>This is a milk-free supplement containing <i>Lactococcus lactis</i> strain Plasma and oligosaccharides, which can be taken daily with water for easy maintenance. It is easy to take.</p>	
Report Number	F184	F186	
Product Image			

– more –

Outline of new *iMUSE* three beverage products

Product name	<i>iMUSE Lemon</i>	<i>iMUSE Water</i>	<i>iMUSE Yogurt Taste</i>
Sales Area	National (Japan)		
Release date	November 24, 2020		
Container/size	500ml PET bottle		
Price (MSRP excluding sales tax)	143 yen		
Distributor	Kirin Beverage Co.		
Flavor	A refreshing lemon water with a hint of sweetness. 92kcal per bottle. (1% juice)	Water drinkable any time for daily rehydration or during sports. Zero calorie and sugar-free.	A yogurt-flavored lactic beverage that is satisfying to drink, yet not too sweet and refreshing.
Packaging	The function of the product is expressed in a simple way with the phrase "support the maintenance of immune function in healthy people." The bold Kirin symbol - the mythical creature that is a messenger of good luck - conveys a sense of trust and gives the design a sense of impact and novelty.		
Report Number	F182	F181	F183
Product Image	