THE NATIONAL ACADEMY OF SCIENCES OF BELARUS

INMI
BIOPRODUCT

Dry bacterial concentrate

IM-laczyme

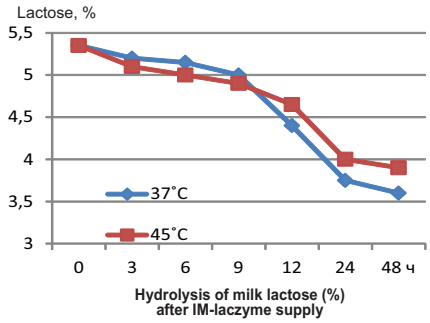
used in starter cultures
to ensure **utmost lactose utilization**
in the course of manufacturing fermented dairy products with upgraded consumer characteristics

Technology of producing low-lactose biokefir «Kefilight» using IM-laczyme bioproduct was developed
(Process manual BY 700036606.126-2014)

Superior efficiency of bifidobacterial strain with increased level of β-galactosidase production:
10-fold over the parent strain,
100-120-fold – compared to the commercial strain *B.lactis* Bb-12

IM-laczyme industrial application will enable:

- to enlarge the spectrum and raise consumer ranking of food commodities;
- to upgrade flavor and promote digestibility of the products;
- to impart new functional properties owing to generation of galactooligosaccharides stimulating development of beneficial intestinal microbiota



Hydrolysis of milk lactose (%) after IM-laczyme supply

Application guidelines

The contents of IM-laczyme package is fed aseptically into milk mix container at the suitable fermentation temperature. The dosage depends on the required cell concentration in the end product and term of storage

Active ingredients

Freeze-dried cells of bifidobacteria with high β-galactosidase activity.
The viable cell titer is at least 1x10^{10} CFU/g

Form of fabrication

The packs containing IM-laczyme portions sufficient to produce 1 ton and 5 tons of biokefir

Terms of storage

12 months at temperatures below -18°C, 3 months at temperatures +2 to +3°C

The percentage of utilized lactose reaches 20-33.7%
using IM-laczyme concentration 1x10^6 CFU/ml

Developed

Institute of Microbiology of NAS of Belarus, Mogilev State Food University, Republican Center for Epidemiology and Microbiology

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