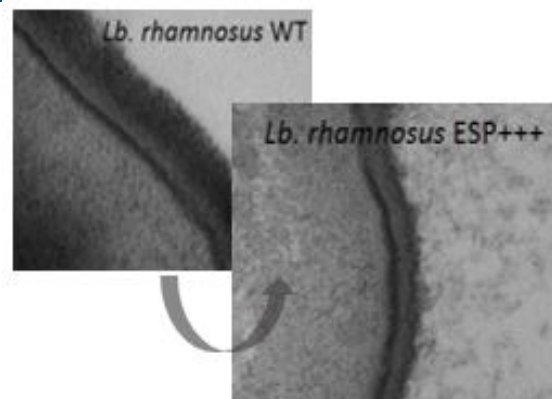


# Novel Selection Method for High-titer Exopolysaccharide-producing Lactic Acid Bacterial Strains

## Description

Adaptable to different bacterial strains, this technique is a promising way to improve LAB, and to avoid molecular genetic interventions. The wide array of EPS produced by LAB contribute to textural and organoleptic properties of fermented foods, several of EPS from selected overproducing variants have been structurally characterized. These EPS can be used purified or produced in situ by the strain. EPS in the gut after intake of EPS-producing strains could serve as a prebiotic – nourishing the microbiome.



## Type of expected transfer

License option agreement with an R&D validation program or licensing for strains

## Advantages

Numerous industrial applications (texture, emulsifier, immunostimulator, etc.) in various commercial fields including pharmaceuticals, cosmetics, food, and nutraceuticals

No need for phages, antibiotics or molecular genetic modifications

Respectful of current European regulatory framework around genetically modified organisms in food

Applicable to various strains

Recently patented technology

## Possible applications

Primarily three different lines of business could best implement and/or benefit from this method: Strain development and improvement service laboratories that do not involve invasive molecular genetic modifications;

- Companies looking to increase/decrease the yield of EPS of their LAB strains for food, cosmetic and medical applications - be it for textural, rheological or immunological properties;

Producers of LAB seeking new strains or strain improvements for their customers

## Key words

Exopolysaccharides, Lactic Acid Bacteria, Selection Method, Probiotics, Fermentation, Food, GMO-Free

## TRL Scale

1 2 3 4 5 6 7 8 9

## Development level

The research team has successfully used the method on several strains which are commercially attractive: Lactobacillus rhamnosus, Lactococcus lactis, and Lactobaccillus pentosus amongst others.

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