TECHNOLOGY OFFER

Screening test for probiotic bacteria

Probiotics / Juvenile growth / Food / Therapeutics

REFERENCE	PROBIOTICS [D01198]
KEYWORDS	SCREEN / PROBIOTICS / LACTOBACILLI / NUTRITION / JUVENILE GROWTH

APPLICATIONS

In vivo screening test to select efficient Lactobacilli probiotic bacteria, related to growth-promoting activity

TARGET MARKETS

- Food industry: functional food (human) and feed (animal), regular consumption, food supplements
- Therapeutic: probiotic therapy, disease prevention

Technology readiness level

TRL 4

INTELLECTUAL PROPERTY

Patent pending FR1454422 & FR1651170, PCT extended

LABORATOIRE

Institute of Functional Genomics of Lyon (IGFL)

ENS, CNRS,UCBL,INRA/ Université de Lyon

DESCRIPTION

A probiotics screening test has been designed to efficiently identify and select Lactobacilli probiotic bacteria having a protective activity against the deleterious effect of malnutrition on juvenile growth. Using this screen, a set of robustly functional Lactobacilli isolates has been identified, that impact juvenile growth up to 38% more than currently available public strains. These novel strains represent a great potential to improve and optimize human and animal juvenile growth when confronted to an unbalanced diet (e.g. low protein diet or high sugar diet) but also in the context of a normal diet.

COMPETITIVE ADVANTAGES

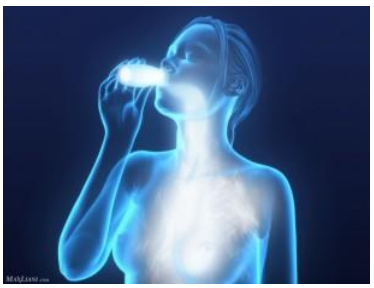
- Novelty : unique in vivo screening test available to identify, select, characterize, compare, and validate the probiotic abilities of bacteria.
- Robust : get powerful statistical results, thanks to high sample size
- Cost-effective and time-efficient : short-term results (1 month)

DEVELOPMENT STATUS

- Proof of concept : screen is valid in 2 animal models (including mammals) with lactobacilli probiotic strains belonging to 8 different species
- Characterization of the probiotic abilities of the selected Lactobacillus plantarum strains show a significant improvement in host physiological traits in a wide range of unbalanced diets (e.g. low protein diet or high sugar diet) and normal diet.

PARTNERSHIP

PULSALYS is looking for industrial partners interested in using this technology through a licence agreement, and/or for co-development partners.



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