

The ability of riboflavin-overproducing *Lactiplantibacillus plantarum* strains to survive under gastrointestinal conditions

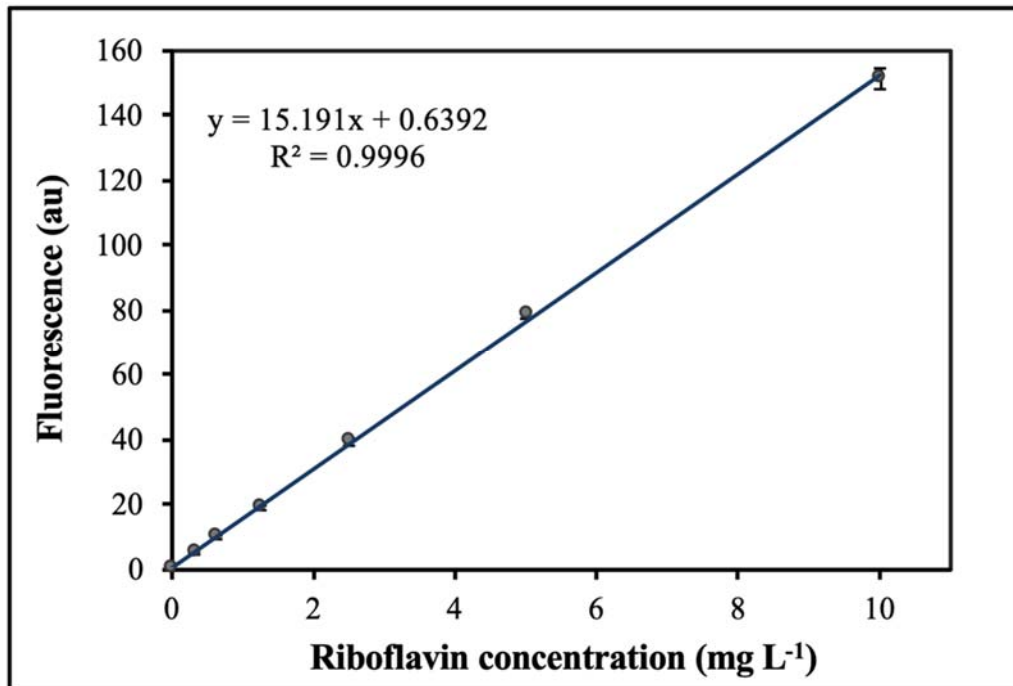
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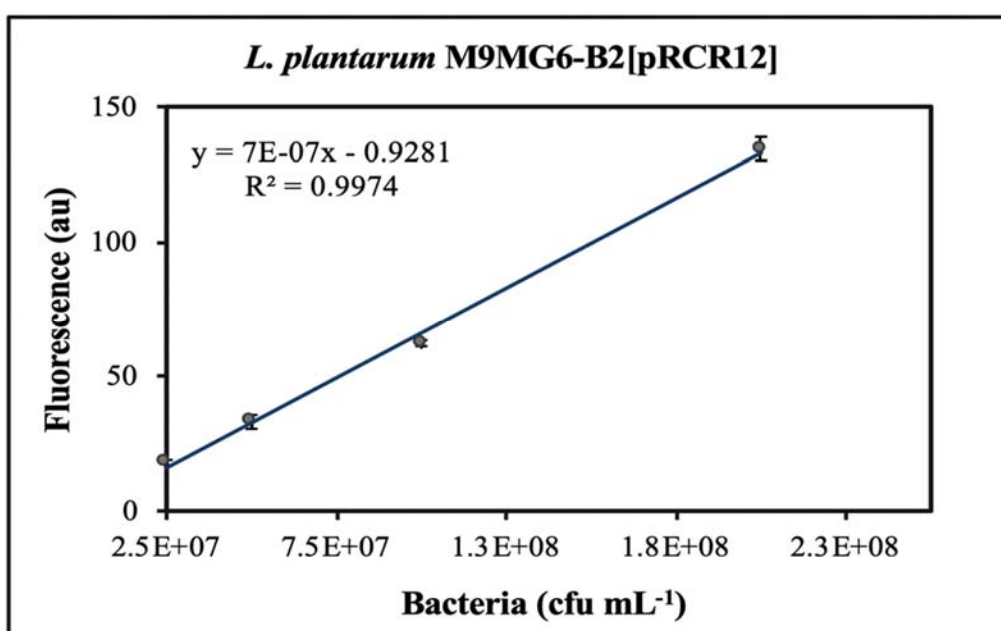
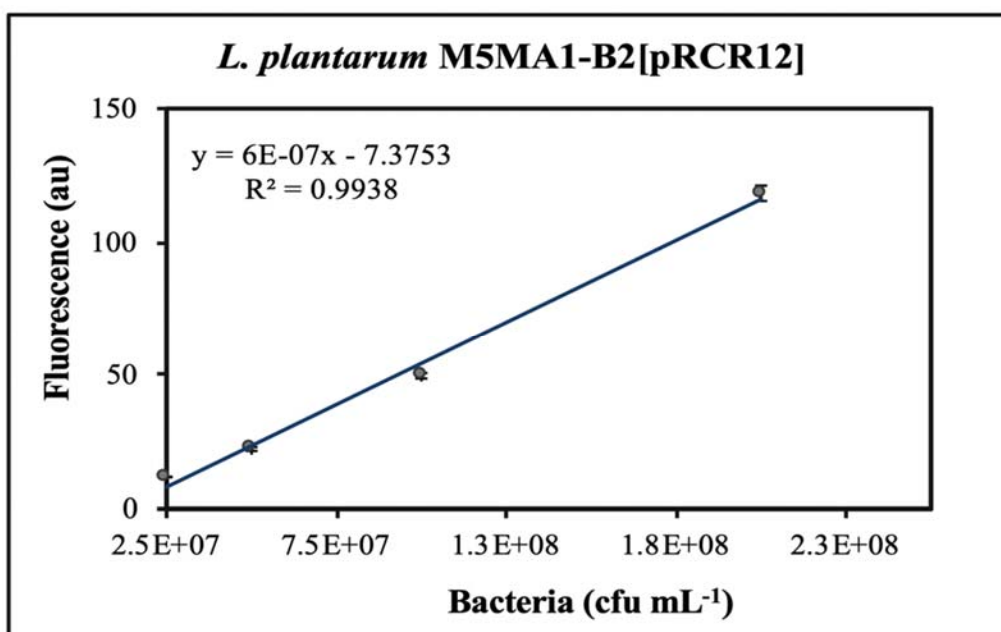
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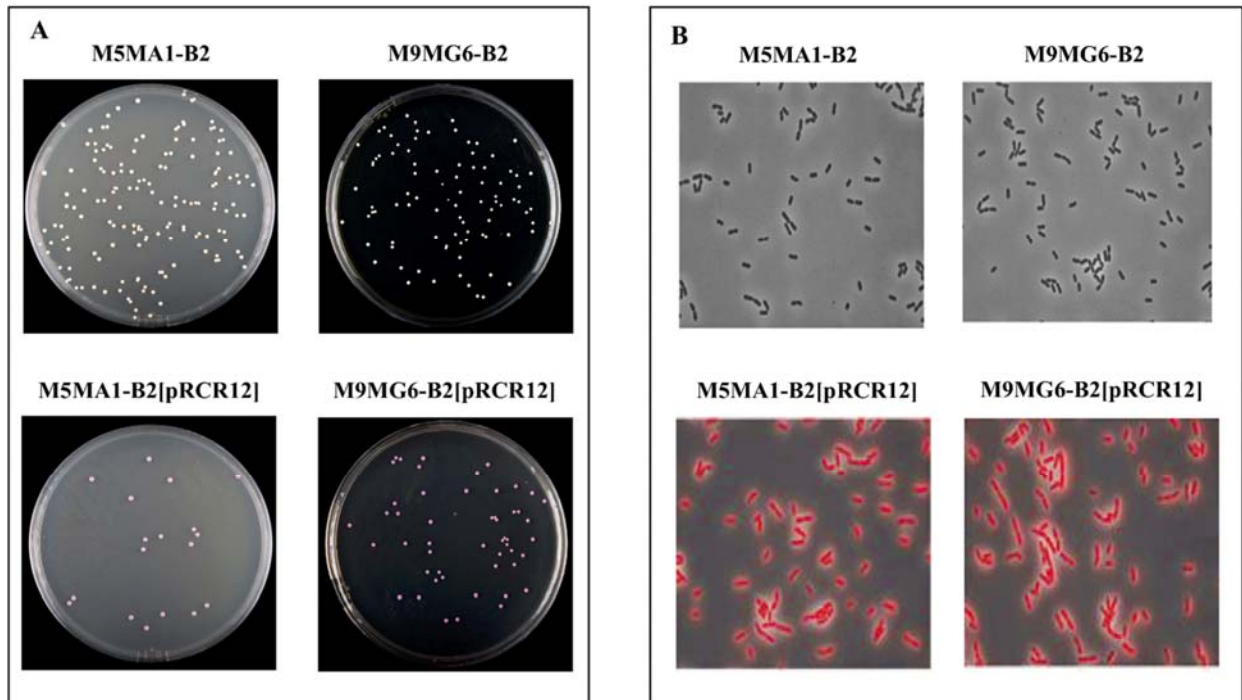
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Supplementary Figure S1. Riboflavin calibration curve. Correlation of riboflavin concentration and fluorescence. Serial dilutions of a riboflavin solution in CDM medium lacking riboflavin at 10 mg mL⁻¹ were used to determine its fluorescence emission at a wavelength of 520 nm after excitation at a wavelength of 440 nm.



Supplementary Figure S2. Calibration curves of *L. plantarum* M5MA1B2[pRCR12] and M9MG6-B2[pRCR12] strains. Correlation of bacterium concentration and fluorescence due to mCherry protein were determined. Serial dilutions of a bacterial suspension at an initial concentration of 2×10^8 cfu mL⁻¹ in saline solution were employed to determine the corresponding fluorescence emission at a wavelength of 610 nm upon excitation at 587 nm. The mean values of three independent determinations and their standard deviations are depicted.



Supplementary Figure S3. Analysis of the *L. plantarum* M5MA1-B2 and M9MG6-B2 strains carrying or lacking pRCR12 plasmid. (A) Colony phenotypes of the strains is depicted. **(B)** Micrographs of bacterial preparations with 100 X magnification, analyzed with a Leica DM1000 model microscope and with a light source EL6000 and the filter system TX2 ET for detection of the mCherry fluorescence.

Supplementary Table S1. Commercial INCAPARINA composition, produced by Central de Alimentos, S.A. (Guatemala City, Guatemala).

		%of RV*
Energy	125 kcal	
Energy from fat	25 kcal	
Total fat	3 g	
Saturated fat	1.5 g	
Cholesterol	10 mg	
Sodium	40 mg	
Potassium	200 mg	
Total carbohydrates	20 g	
Sugars	12g	
Dietary fibers	1g	
Proteins	4g	8
Vitamins and ions		
Vitamin A	80 µg	10
Vitamin B1	0.144 mg	12
Vitamin B2	0.216 mg	18
Vitamin B12	2.4 µg	40
Vitamin D	1.5 µg	30
Folic acid	60 µg	15
Niacin	1.5 mg	10
Iron	1.68 mg	12
Zinc	1.8 mg	12
Calcium	200 mg	20

Quantities per package of Incaparina (resuspension in 200 mL).

*Reference Values (RV) according to the FAO/WHO Codex Alimentarius.