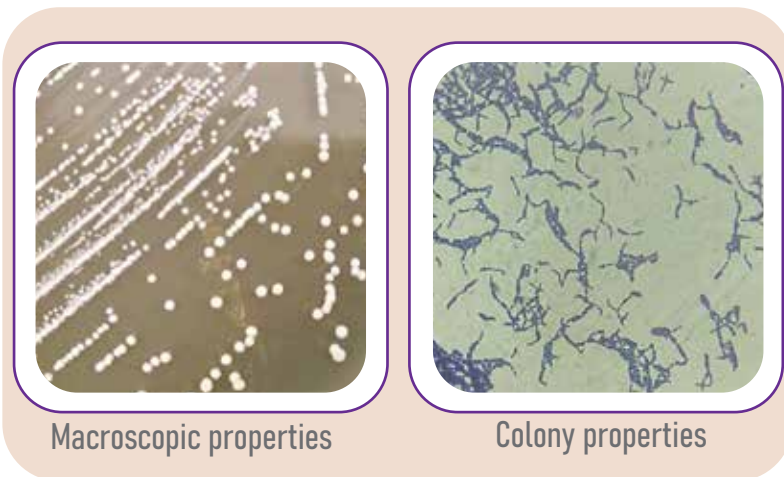


Lacticaseibacillus casei (Lactobacillus casei)



Macroscopic properties

Colony properties

Basic Info

Product name	<i>Lacticaseibacillus casei</i> probiotic bulk powder	
Type	Freeze Dried Probiotics powder	
Grade	Pharma (USP) & Food	
Resource	Natural, Traditional cheese	
Certification	Iran Food & Drug Administration (IRC)	
Trademark	Biorun	
Function	Nutritional Supplement Raw Material	
Storage Conditions	Store in original container. Keep refrigerated, Keep away from direct sunlight and moisture.	
Shelf Life	2 Years	
Microbial Tests	Viable Cell Count (Probiotic)	1×10 ⁷ up to 1×10 ¹¹
	Total Combined Molds and Yeasts Count	NMT 10
	Total Non-Lactic Acid Bacteria Count	NMT 5×10 ²
Physical- Chemical Tests	Description	White, yellow to light brown powder with sweet pickled, fermented smell
	Moisture (LOD)	<6.0 %
	Heavy Metals	<10 µg/g

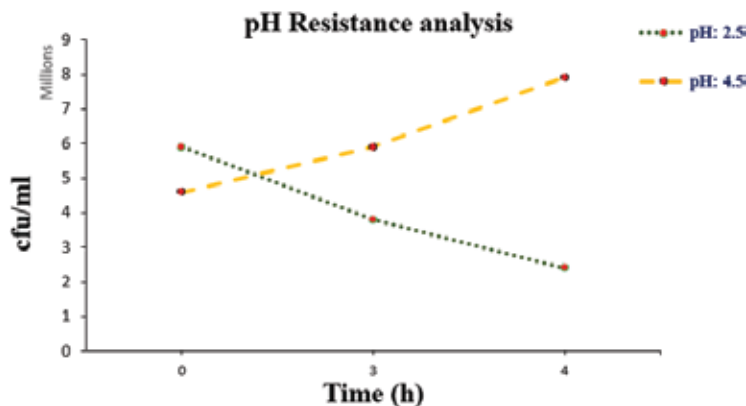
Applications:

- 1-Medication, HealthCare, Dietary Supplements, in form of capsules, tablets, sachets, drops etc.
- 2-Food applied products, gummies, chocolate, candies, bakeries etc.
- 3-Dairy products, like yoghurts, milk, cheese, etc.

Probiotic Characteristics

1-Resistance to Acidic pH

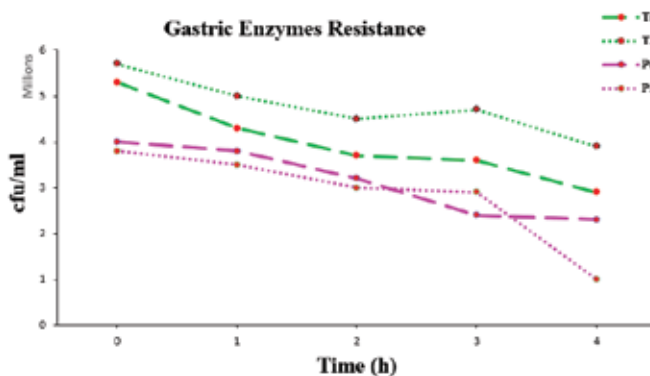
The results showed Tolerance of *L.casei* to pH 2.5 and 4.5.



Growth rate (cfu/ml) results of *L.casei* in different pH and control treatment groups

2-Resistance to simulated gastric and intestinal conditions

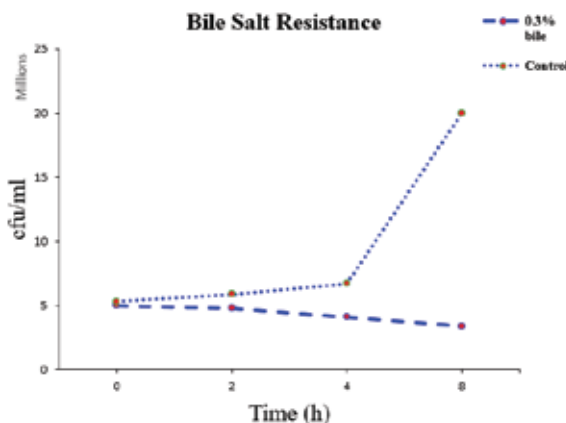
The results showed no significant decrease, bacteria count during 0-4 hours was not less than 10^6 even growth in all conditions.



Mean survival results of *L.casei* in simulated gastric and intestinal conditions

3-Resistance to Bile salt

Bile tolerance is known as one of the key factors for candidate probiotics strains which shows survival and growth rate of the probiotic in the Gastrointestinal tract (GIT). The results showed no significant decrease, even growth in all conditions.



Growth rate (cfu/ml) results of *L.casei* in % 0.3 of bile salt and control treatment groups