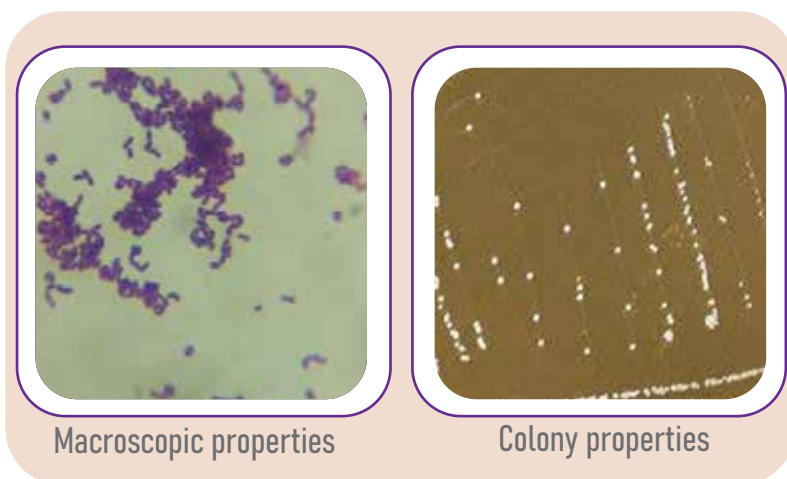


Lacticaseibacillus paracasei (Lactobacillus paracasei)



Macroscopic properties

Colony properties

Basic Info

| | | |
|--------------------------|--|---|
| Product name | <i>Lacticaseibacillus paracasei</i> probiotic bulk powder | |
| Type | Freeze Dried Probiotics powder | |
| Grade | Pharma (USP) & Food | |
| Resource | Natural, Sheep milk | |
| Certification | Iran Food & Drug Administration (IRC) | |
| Trademark | Biorun | |
| 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 |

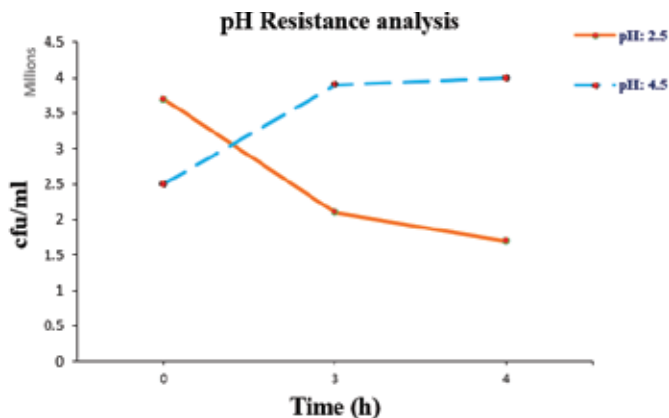
Applications:

- 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

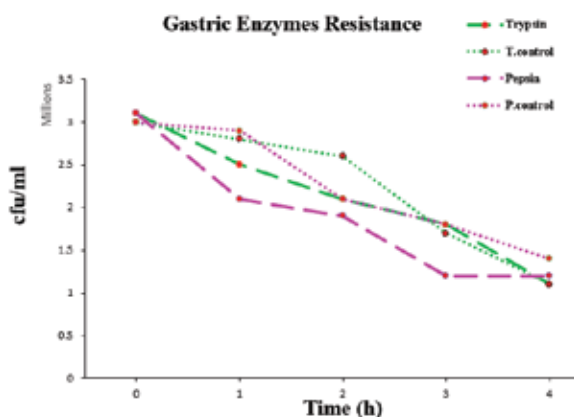
The results showed Tolerance of *L.paracasei* to pH 2.5 and 4.5.



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

2-Resistance to simulated gastric and intestinal conditions

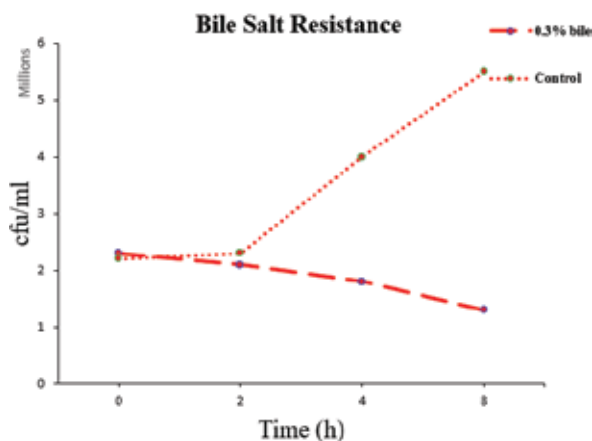
The results showed no significant decrease in count, bacteria count during 4-0 hours was not less than 10^6 even growth in all conditions



Mean survival results of *L.paracasei* 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.



Results of resistance and growth of *L.paracasei* in different concentration of bile salt and control groups