

# Probiotics ARA-1

Improves health and strengthens the bones by regulating IFN-gamma to achieve balanced immunity.

## What is arthritis?

Arthritis has a collection of symptoms such as redness, swelling, burning and pain. In the clinical definition, arthritis is sub-categorized into acute, chronic, frequently recurring, rarely recurring, single-joint, serious and mild arthritis. There are 100 arthritis-associated illnesses, among which degenerative arthritis, rheumatoid arthritis, ankylosing spondylitis and gouty arthritis are the most prevalent ones.

## Statistics of Arthritis

- In United States 1 in 6 people has arthritis which is equitant to 45 million American.
- By year 2020 this number is expect to reach 59 million.
- Total cost of medical care and lost wages exceeding \$ 65 billion every year in US.
- 14 % of China people currently suffer from chronic joint symptoms.
- Most Rheumatoid Arthritis (RA) patients are females (75%), while only 25% are males.
- Rheumatic diseases are the leading cause of disability among adults age 65 and older.

Natural and safe probiotics to balance the immune system ~ARA-1~

## Several documents have shown that probiotics can balance the immune system and alleviate inflammatory reactions!!!

- Through oral administration, Lactobacillus casei strain Shirota(LcS) can regulate the level of type II collagen (CII) in humoral and cellular immune responses, resulting in the postponing progress of type II collagen-induced arthritis (CIA) in DBA/1mice. (Source: Suppressive effects of the oral administration of Lactobacillus casei on typeII collagen-induced arthritis in DBA/1 mice. Life Sci. 1998; 63(8):635-44.)
- Through IV injection, L.salivarius 118 can suppress the development of Collagen induced arthritis (CIA). (Source: Is the mucosal route of administration essential for probiotic function? Subcutaneous administration is associated with attenuation of murine colitis and arthritis. Gut. 2004 May; 53(5):694-700.)



# ARA-1



GenMont functional probiotic strain ARA-1 was isolated from probiotic bacteria derived from healthy human intestines. It is a non-pathogenic gram-positive bacillus conforming to GRAS standards.

## ARA-1 has the features listed below:

- Probiotics derived from the intestinal tract of health population are safe
- Studies have shown:
  1. ARA-1 is beneficial to achieve balanced immunity
  2. ARA-1 can reduce excessively-secreted IFN- $\gamma$

## Product Information

**Product name:** ARA-1

**Ingredient:** Lactobacillus reuteri

**Recommended daily intake:**  $5 \times 10^9$  cells

**Shelf-life:** 2 years

**Storage condition:** Store at room temperature

### Potential commercial applications:

- Form: ARA-1 bacteria powder/solution
- Adjusting physiological performance: capsule.
- Increase the added-value of the original product: ARA-1 can be added into yogurt drink, yogurt, milk (fresh/powder) and sports drinks to enhance the nutrition values.

### Features

- Effectively alleviates inflammatory reactions seen in arthritis and achieve balanced immunity.
- Resistant to gastric acid and bile.
- Adjusts physiological performances, enhancing digestion, helps establish a regular excretion patterns and builds a health intestinal bacteria flora.
- Generally recognized as safe (GRAS) lactic acid bacterial strain is used for production. No adverse effects upon consumption.

### Targeted users:

- Dietary supplements for arthritis patients.
- Adjusting physiological performance and enhancing overall wellness.

### Packaging:

- Powder: 1kg/pack; 5kg/pack; 10kg/pack
- Solution: 0.5L/bot; 10L/bot

### Manufacturing advantages:

- (1) GMP-certified active pharmaceutical factory.
- (2) Advanced high-density automatic fermentation culture facility.
- (3) High-throughput and contamination-free bacterial strain isolation.
- (4) Lyophilization technologies for maintaining bacterial functionality.
- (5) High quality sterile manufacturing procedures.
- (6) Stringent quality control.
- (7) Automatic manufacturing monitor.