

Bacillus Ferment

SPECIFICATION

Cat.No.	Pro-0010B
Product Name	<i>Bacillus</i> Ferment
Synonym	Antimicrobial Peptide Ferment
Strain Source	<i>Bacillus subtilis</i>
Production Process	Antimicrobial peptide process: The fermentation substrate is fermented and cultured by <i>Bacillus subtilis</i> , and then separated and extracted to obtain the fermentation metabolites.
Mechanism of Action	<p>The short peptides produced by <i>Bacillus subtilis</i> during its fermentation process, when in contact with pathogens, first bind to the negatively charged phospholipids on the pathogen cell membrane at the positively charged N-terminus. Then, the position of the phospholipid molecules is replaced, causing the cell membrane to undergo a phase change, forming a transmembrane channel, destroying the integrity of the membrane and causing perforation, causing the cell contents to overflow the cell and causing the pathogen cell to die.</p> <p>Antimicrobial peptides are highly selective for pathogen cells, while their effects on the cell membranes of normal cells (human skin cells) are relatively weak. They are mainly targeted at Gram-negative and Gram-positive bacteria.</p>
Appearance	Light brown to brown liquid
Odor	Characteristic fermentation odor
Solubility (20°C)	Easily soluble in water
pH Value (25°C)	5.0-7.0
Usage Suggestions	<ul style="list-style-type: none"> • Aqueous system: 0.5%-1.5% • Emulsified system: 1.0%-2.5% • Surfactant system: 1.0%-3.0% • Anti-dandruff products: 1.0%
Effects	Antimicrobial peptides can effectively remove different types of acne, pimples, and

Bacillus Ferment

blackheads, making the skin full of vitality and vigor:

- Regulate the secretion of sebaceous gland cells
- Soften keratin and open blocked pores
- Antibacterial and antibacterial effects
- Anti-inflammatory

It also has the effects of enhancing skin immunity, enhancing skin elasticity, moisturizing and anti-aging:

- Enhance skin immunity and repair skin
- Anti-oxidation and free radical scavenging effects
- Moisturizing
- Regulate skin microecology and repair red blood or hormone face

Efficacy Research	Antibacterial test Test sample: antimicrobial peptide ferment (dilution multiple 1:9) Test bacteria: <i>Candida albicans</i> , <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> , <i>Pseudomonas aeruginosa</i> Test state: liquid Action concentration and time: 1:9, action 30min, repeated 3 times Test environment: 20.1°C, 41% (relative humidity) Test results: Antibacterial rate \geq 90%, with strong antibacterial effect
Application	Widely used in aqueous, emulsified, surfactant and other systems.
Storage	Store sealed in a dry and cool place at room temperature, away from light, moisture, frost and heat.
Shelf Life	1 year
