

Bloomcolla™

Recombinant Collagen III

(Medical Device Grade)

- Repair
- Regeneration
- High Safety

■ Product Introduction

Collagen III serves as a critical component in dermal physiology, demonstrating multifunctional efficacy in enhancing cutaneous elasticity, modulating barrier function. Bloomage utilizes AI and synthetic biology technology platforms to establish a collagen protein library containing over 20,000 entries, thoroughly exploring the sequence-site-function code of human collagen. Through machine learning, physicochemical experiments, cell models, and safety testing, an optimal sequence has been identified. After strain construction, fermentation by yeast, purification and lyophilization, Bloomcolla™ Recombinant Collagen III ("COL3") in spongy solid is obtained. It can be widely used in aesthetics, wound repair & healing, and other medical products.

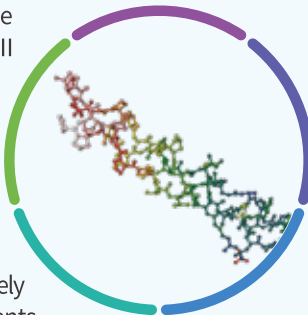
■ Product Features

● Technical Aspects

- Expressed by GRAS-certified yeast strain, no endogenous endotoxins
- Composed of 497 amino acids, with molecular weight of 45 KDa
- 100% identity of amino acid sequence to the specific functional region of human collagen III
- Classified as **Type A** recombinant humanized collagen III
- Patented amino acid sequence and preparation method

● Higher Biological Efficacy

- 32 functional fragments 
- **High-activity** functional fragments are precisely connected to hydrophilic functional fragments
- 12 integrin-specific binding sites
- Excellent efficacy is verified by experiments with cells and human volunteers



● Intellectual Property Protection

- The protein sequence and production process have been granted a Chinese invention patent: ZL202210739807.1 (authorized)

● High Safety

- No protein purification tags
- Devoid of animal immunogenicity and free from the risk of viral contamination
- Safety validated through clinical testing

● Excellent Biocompatibility

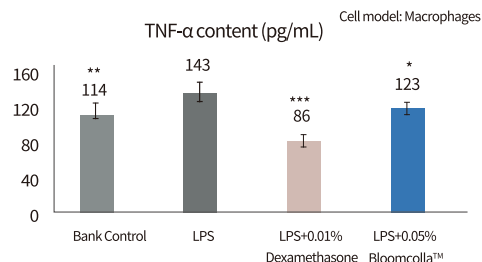
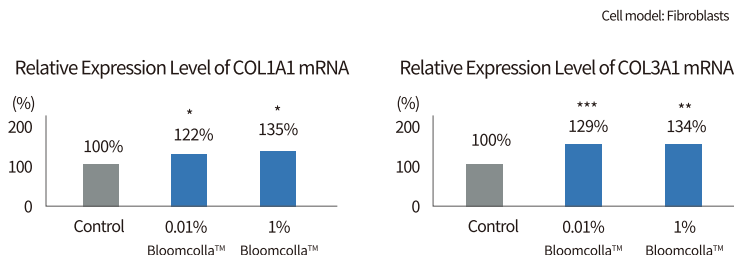
- 15+ validation trials at analyte concentrations reaching 2%

Efficacy Test

1. For Aesthetics

Collagen Regeneration: Bloomcolla™ COL3 significantly increases the gene expression of collagen and great potency for anti-aging.

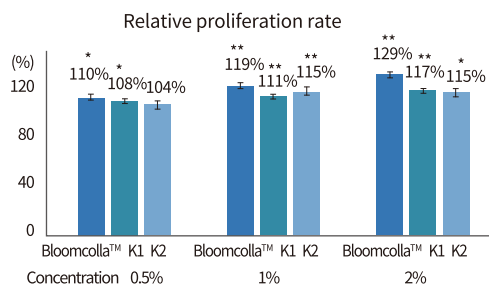
Anti-inflammatory: Bloomcolla™ COL3 at 0.05% significantly inhibits the secretion of TNF-α, indicating its great anti-inflammatory potential.



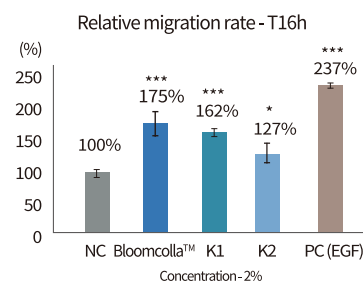
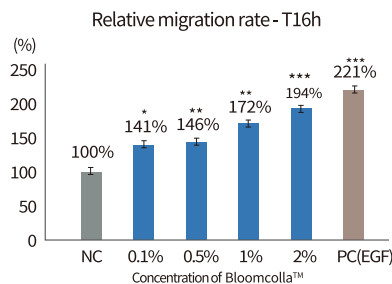
2. Wound Repair and Healing

Bloomcolla™ COL3 significantly promotes cell proliferation, adhesion, and migration, demonstrating strong tissue repair capabilities.

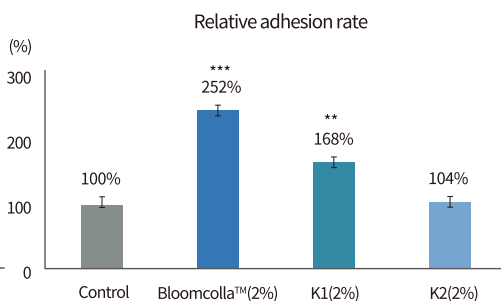
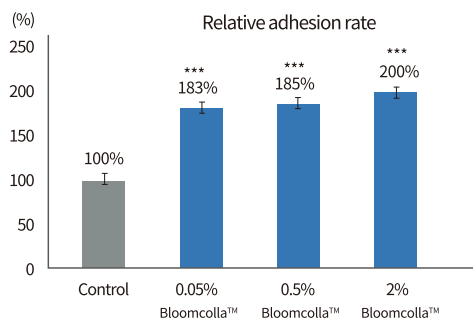
1 Excellent Cell Proliferation



2 Remarkable Cell Migration



3 Superior Cell Adhesion



Remark

- Bloomcolla™ COL3
- K1: Key competitor (Recombinant collagen)
- K2: Key competitor (Animal-derived collagen)

Cell model: HaCaT
 NC: Negative Control; PC: Positive Control
 * P < 0.05, ** P < 0.01, *** P < 0.001

Data Source: Test results from the company's laboratory and accredited third-party laboratories.

Product Information

Product Name	Appearance	Purity	Applications	Recommended Dosage
Bloomcolla™ Recombinant Collagen III (Medical device grade)	White or almost white spongy solid	≥95%	Injectable aesthetics, Wound repair & healing, Private Car nation, Dermatitis, Eczema and Acne Treatment	0.05~2.0%



CREATIVE TECHNOLOGY FOR VIBRANT LIFE

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