

Bioyouth™-NANA

N-Acetylneuraminic Acid

Cell "antenna"

Amino sugars that occur naturally in the human body

The main functional ingredient of bird's nest

Skin
protectant

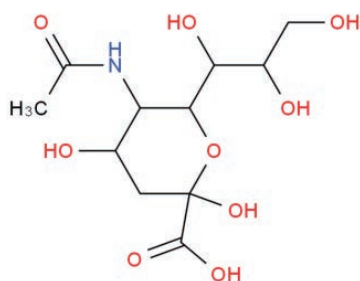
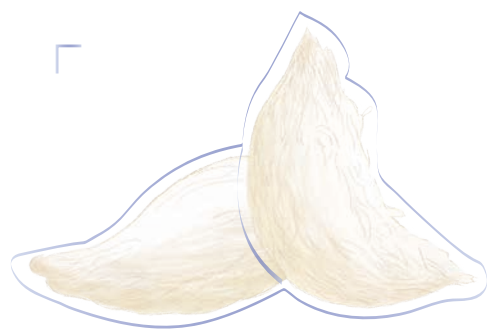
Anti-wrinkle

Humectant

Antioxidant

● Introduction

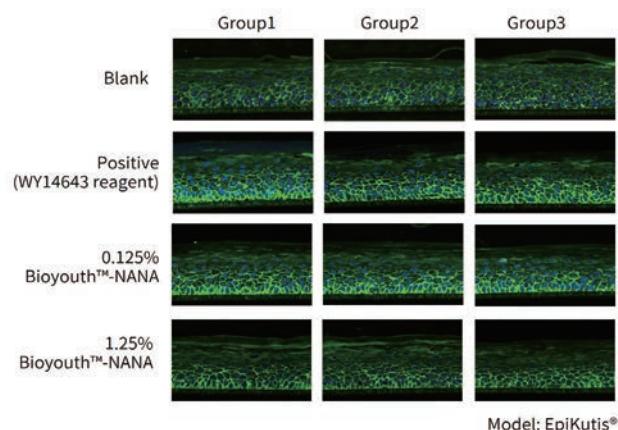
N-Acetylneuraminic Acid (NANA), also known as sialic acid, was first isolated from bovine submandibular gland mucoprotein by Blix et al. in 1957. NANA is a naturally occurring amino sugar found primarily in the central nervous system and breast milk of humans. It is essential for the development of the nervous system and brain, playing a crucial role in regulating synaptic formation, neurogenesis, cell proliferation and migration, cell adhesion and axon guidance, as well as modulating innate immune function.



N-Acetylneuraminic Acid
Structural Formula

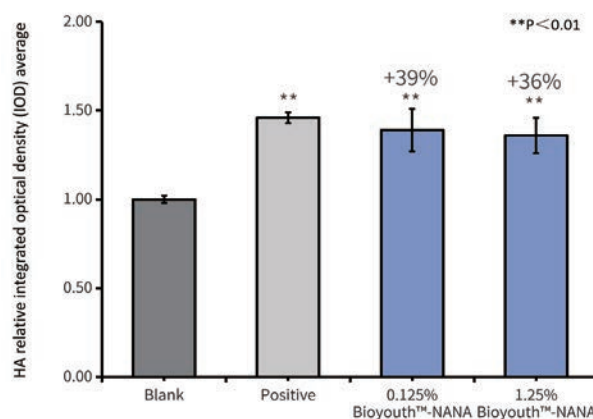
Bird's nest, known as the "Eastern Caviar," is a health food ingredient with medicinal properties. It is beneficial for nourishing the skin, moisturizing the lungs, and has antioxidant, immune-enhancing, anti-aging, antiviral, and gut microbiota-regulating effects. Additionally, the Compendium of Materia Medica records the medicinal effects and medical value of bird's nest. In bird's nests, N-Acetylneuraminic Acid (NANA) is the main active ingredient and is also a key indicator of the quality of bird's nests.

Promotes the expression of CD44 (*in-vitro*)



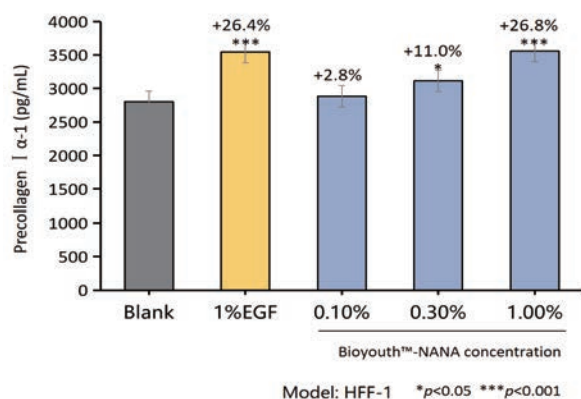
The CD44 protein is a receptor for hyaluronic acid in the human body and plays a crucial role in the skin as a key control factor in cell differentiation, barrier development, and skin hydration. Compared to the blank control group, concentrations of 0.125% and 1.25% of Bioyouth™-NANA can significantly increase the CD44 content in the skin.

Promotes the content of HA (*in-vitro*)



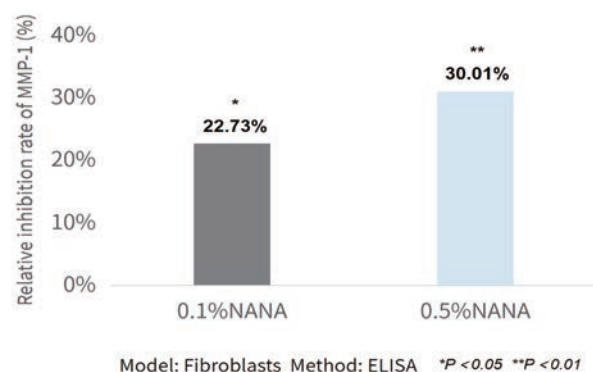
Compared to the blank control group, Bioyouth™-NANA at concentrations of 0.125% and 1.25% can significantly increase the content of Hyaluronic Acid (HA) in the skin. This enhances skin hydration, skin elasticity, and combats wrinkles.

Promotes the secretion of procollagen I α-1 (*in-vitro*)



0.3% and 1% Bioyouth-NANA™ N-Acetylneuraminic Acid can significantly promote the secretion of procollagen by skin fibroblasts, and have firming and anti-wrinkle effects.

Inhibits MMP-1 activity and delays skin aging (*in-vitro*)



After UVA stimulation of human dermal fibroblasts, the content of matrix metalloproteinase 1 (MMP-1) significantly increased. The experiment showed that Bioyouth™-NANA at 0.1% and 0.5% exerted significant inhibitory effects on MMP-1, with relative inhibition rates of 22.73% and 30.01% respectively.

【Description】

INCI name:

N-acetylneuraminic acid

Appearance: white powder

Recommended dosage:

0.1%-2.0%

Add method:

1. Soluble in water, can be directly added to the aqueous phase;

2. It is recommended to use an alkaline pH adjuster to neutralize N-acetylneuraminic acid to pH neutral and add it to the formula system, it is recommended to use regulators: triethanolamine, aminomethylpropanol, etc;

3. Add in the cooling process (at 45°C).

Applications: lotion, cream, essence, mask, facial cleanser, toothpaste, mouthwash, shampoo and other products



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