

# L-Fucose

## Product Information

Product Name: L-Fucose

Grade: Pharmaceutical grade/Biochemical grade/Food grade/Cosmetic grade

Source: Natural

Mol. Formula: C<sub>6</sub>H<sub>12</sub>O<sub>5</sub>

Mol. Weight: 164.16

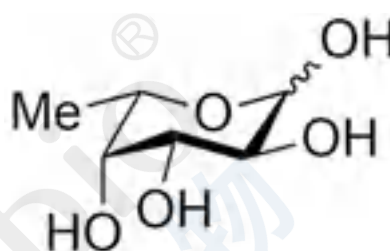
CAS No.: 2438-80-4

Solubility: 50 mg/mL in water

Appearance: White crystalline powder

Package: 100g, 1Kg, 5Kg, 25Kg

Storage: Store at 2~8°C. Protect from moisture.



## Product Introduction

L-Fucose (CAS No. 2438-80-4) is a natural sugar commonly derived from brown algae and human breast milk, and it is also present in certain human organs, including the skin and nervous system. Naturally, fucose is predominantly found in the L-configuration and exists in seaweed as polysaccharides such as fucoidan. On the other hand, D-configuration fucose is a rare sugar and is found in certain glycolipids.

## Applications

### Medical Applications (purity ≥ 99%)

Elevated serum fucose levels are reported in breast cancer, ovarian cancer, lung cancer, liver cancer, diabetes, and cardiovascular disease.

Feeding rats with high-content L-fucose diets can induce neuropathy similar to that seen in diabetic patients.

## Biotechnological Applications (purity $\geq$ 99%)

1. Enhance Protein Stability and Solubility: L-fucose, as a non-reducing sugar, undergo glycosylation reactions with proteins, enhancing protein stability and preventing degradation.
2. Incorporating L-fucose into protein preparations enhances their stability, ensuring they remain intact during transit and warehousing.
3. L-fucose elevates the solubility of proteins, leading to an improved dissolution rate for injectable formulations.
4. Minimizing Immunogenicity: L-fucose can cover antigenic epitopes on certain proteins, thereby reducing immunogenicity and minimizing immune responses.
5. Commonly added to certain protein vaccines.

## Food Applications (purity $\geq$ 99%)

In the realm of food science, L-fucose exhibits promising potential for various applications. Extensive research has validated its significant role in maintaining a harmonious intestinal flora balance. During periods of illness, the intestines produce L-fucose to foster the health and equilibrium of the gut microbiota. Consequently, the inclusion of L-fucose in food products is highly advantageous for promoting gut health.

## Cosmetics Applications (purity $\geq$ 95%)

L-fucose possesses moisturizing properties, making it an ideal ingredient in skincare products to enhance their hydrating effects on the skin. It offers protective benefits to fibroblasts in the skin, enabling its use in various anti-radiation and sunscreen cosmetics to safeguard the skin from harmful radiation and sun damage. L-fucose accelerates skin tissue regeneration, boosts skin elasticity, and diminishes wrinkles, making it a suitable ingredient in anti-wrinkle and anti-aging cosmetics.



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