

# Fructosyltransferase

**Cat:** F8371

**Specification:** 500g

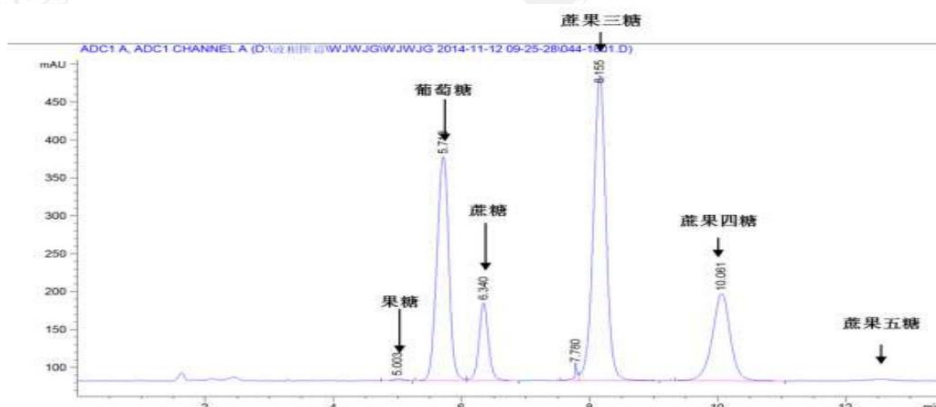
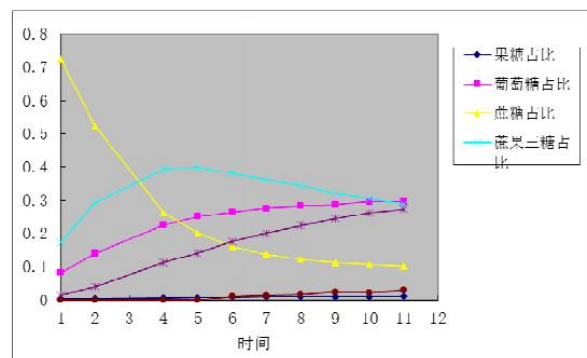
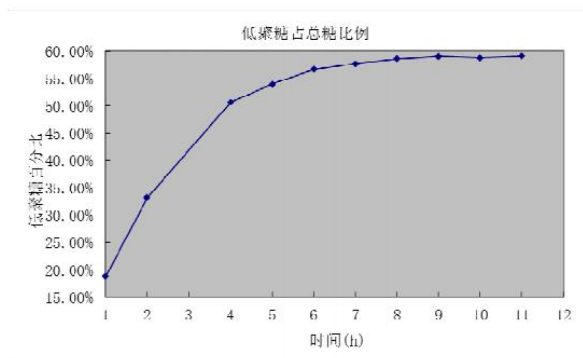
**Storage:** Store at room temperature and avoid light.

**Enzyme Activity/Potency:**  $\geq 26000\text{U/mL}$

## Introduction

Fructosyltransferase (EC 2.4.1.9), also known as  $\beta$ -Fructo-furanosidase (EC 2.4.1.26), is a versatile hydrolytic enzyme with both transferase activity and broad receptor specificity. It can utilize sucrose as a substrate to synthesize fructooligosaccharides (FOS), such as sucrose kestose, among others. FOS, also known as oligofructose, is an excellent food ingredient renowned for its prebiotic physiological benefits. It primarily consists of sucrose-linked disaccharides but also contains higher oligomers like sucrose kestose and sucrose nystose.

Our product is derived from a high-yielding strain of *Aspergillus oryzae* through deep fermentation and subsequent refinement. When used in the production of oligofructose, this product achieves a one-step conversion rate of 56% to 59%, ensuring efficient synthesis of oligofructose with desirable yields.



## Definition of Enzyme Activity:

Under optimal enzymatic conditions (45°C, pH 5.5), the amount of enzyme required to convert sucrose into fructooligosaccharides, specifically generating 1  $\mu\text{mol}$  of sucrose kestose per minute, is defined as one enzyme activity unit (U).

**Product Standards:**

Complies with the National Standards of the People's Republic of China: GB 1886.174-2016 National Food Safety Standard for Enzyme Preparations Used in the Food Industry (GBT 23528-2009 for Oligofructose).

**Product Characteristics:**

1. Temperature Range: The optimal temperature range is 45-65°C.
2. pH Range: The optimal pH range is 5.0-5.5.
3. Influence of Metal Ions on Enzyme Activity: EDTA exhibits an activating effect on the enzyme.

**Usage Instructions(Exemplified with 3000U/mL):**

For the production of oligofructose, dissolve the raw material sucrose at a concentration of 55%-75% (w/v). Adjust the pH to 5.0-5.2, then heat to 60-62°C. Add the fructosyltransferase enzyme. The recommended dosage is generally 2.0 mL/kg of sucrose or 2.0 L/t of sucrose (dry basis). Allow for a transglycosylation time of 24 hours.

**Note**

1. Unless otherwise specified, the biochemical reagents produced by our company are generally non-sterile packaged. If they are to be used for cell experiments, please conduct pretreatment in advance.
2. Once dissolved, please store the solution in separate containers to avoid product degradation caused by repeated freezing and thawing.
3. The product information is for reference only. If you have any questions, please call 400-968-6088 for consultation.
4. The products are all for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store them in ordinary residential areas.
5. For your safety and health, please wear laboratory clothes, disposable gloves and masks to operate.