

## protein-N $\pi$ -phosphohistidine-D-fructose phosphotransferase

Cat. No. EXWM-3037

Lot. No. (See product label)

### Introduction

#### Description

This enzyme is a component (known as enzyme II) of a phosphoenolpyruvate (PEP)-dependent, sugar transporting phosphotransferase system (PTS). The system, which is found only in prokaryotes, simultaneously transports its substrate from the periplasm or extracellular space into the cytoplasm and phosphorylates it. The phosphate donor, which is shared among the different systems, is usually a phospho-carrier protein of low molecular mass that has been phosphorylated by EC 2.7.3.9 (phosphoenolpyruvate-protein phosphotransferase). The enzyme from the bacterium *Escherichia coli* is an exception, since it is phosphorylated directly by EC 2.7.3.9. The reaction involves a successive transfer of the phosphate group to several amino acids within the enzyme before the final transfer to the substrate.

#### Synonyms

fruAB (gene names); fructose PTS permease; EIIFru; Enzyme IIFru

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 2.7.1.202

#### Reaction

[protein]-N $\pi$ -phospho-L-histidine + D-fructose[side 1] = [protein]-L-histidine + D-fructose 1-phosphate[side 2]

#### Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

### Storage and Shipping Information

#### Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.