Creative Enzymes®

protein-Nπ-phosphohistidine-lactose phosphotransferase

Cat. No. EXWM-3042

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 a phospho-carrier protein of low molecular mass that has been phosphorylated by EC 2.7.3.9 (phosphoenolpyruvate-protein phosphotransferase). Enzyme II, on the other hand, is specific for a particular substrate, although in some cases alternative substrates can be transported with lower efficiency. 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 lacEF (gene names); lactose PTS permease; EIILac; Enzyme IILac

Product Information

Form Liquid or lyophilized powder

EC Number EC 2.7.1.207

Reaction [protein]-Nπ-phospho-L-histidine + lactose[side 1] = [protein]-L-histidine + lactose 6'-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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.