Creative Enzymes®

α,α-trehalose synthase

Cat. No. EXWM-2474

Lot. No. (See product label)

Introduction

Description	Requires Mg2+ for maximal activity. The enzyme-catalysed reaction is reversible. In the reverse direction to that shown above, the enzyme is specific for α,α-trehalose as substrate, as it cannot use α- or β-paranitrophenyl glucosides, maltose, sucrose, lactose or cellobiose. While the enzymes from the thermophilic bacterium Rubrobacter xylanophilus and the hyperthermophilic archaeon Pyrococcus horikoshii can use ADP-, UDP- and GDP-α-D-glucose to the same extent, that from the hyperthermophilic archaeon Thermococcus litoralis has a marked preference for ADP-α-D-glucose and that from the hyperthermophilic archaeon Thermoproteus tenax has a marked preference for UDP-α-D-glucose.
Synonyms	trehalose synthase; trehalose synthetase; UDP-glucose:glucose 1-glucosyltransferase; TreT; PhGT; ADP-glucose:D-glucose 1-α-D-glucosyltransferase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.4.1.245
Reaction	NDP-α-D-glucose + D-glucose = α,α-trehalose + NDP
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 ℃.