

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