Creative Enzymes®

glycogenin glucosyltransferase

Cat. No. EXWM-2412

Lot. No. (See product label)

Introduction

Description	The first reaction of this enzyme is to catalyse its own glucosylation, normally at Tyr-194 of the protein if this group is free. When Tyr-194 is replaced by Thr or Phe, the enzyme's Mn2+-dependent self-glucosylation activity is lost but its intermolecular transglucosylation ability remains. It continues to glucosylate an existing glucosyl group until a length of about 5–13 residues has been formed. Further lengthening of the glycogen chain is then carried out by EC 2.4.1.11, glycogen (starch) synthase. The enzyme is not highly specific for the donor, using UDP-xylose in addition to UDP-glucose (although not glucosylating or xylosylating a xylosyl group so added). It can also use CDP-glucose and TDP-glucose, but not ADP-glucose or GDP-glucose. Similarly it is not highly specific for the acceptor, using water (i.e. hydrolysing UDP-glucose) among others. Various forms of the enzyme exist, and different forms predominate in different organs. Thus primate liver contains glycogenin-2, of molecular mass 66 kDa, whereas the more widespread form is glycogenin-1, with a molecular mass of 38 kDa.
Synonyms	glycogenin; priming glucosyltransferase; UDP-glucose:glycogenin glucosyltransferase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.4.1.186
CAS No.	117590-73-5
Reaction	UDP-α-D-glucose + glycogenin = UDP + α-D-glucosylglycogenin
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 ℃.