Creative Enzymes®

# C-terminal processing peptidase

*Cat. No. EXWM-4097*

*Lot. No.* (See product label)

## Introduction

***Description*** Proteolytic processing of the D1 protein of photosystem II is necessary to allow the light-driven assembly of the tetranuclear manganese cluster, which is responsible for photosynthetic water oxidation. The recognition of the substrate is mediated by a PDZ domain, a small protein module that promotes protein-protein interactions by binding to internal or C-terminal sequences of their partner proteins. Type example of peptidase family S41.

***Synonyms*** CtpA gene product (Synechocystis sp.); photosystem II D1 protein processing peptidase; protease Re; tail-specific protease; Tsp protease

## Product Information

***Form*** Liquid or lyophilized powder

***EC Number*** EC 3.4.21.102

***CAS No.*** 216484-75-2, 92480-11-0

***Reaction*** The enzyme shows specific recognition of a C-terminal tripeptide, Xaa-Yaa-Zaa, in which Xaa is preferably Ala or Leu, Yaa is preferably Ala or Tyr, and Zaa is preferably Ala, but then cleaves at a variable distance from the C-terminus. A typical cleavage is -Ala-Ala┼Arg-Ala-Ala-Lys-Glu-Asn-Tyr-Ala-Leu-Ala-Ala. In the plant chloroplast, the enzyme removes the C-terminal extension of the D1 polypeptide of photosystem II

***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 ℃.