

peptidyl-glutamate 4-carboxylase

Cat. No. EXWM-4840

Lot. No. (See product label)

Introduction

- **Description** The enzyme can use various vitamin-K derivatives, including menaquinol, but does not contain iron. The mechanism appears to involve the generation of a strong base by oxygenation of vitamin K. It catalyses the post-translational carboxylation of glutamate residues of several proteins of the blood-clotting system. 9-12 glutamate residues are converted to 4-carboxyglutamate (Gla) in a specific domain of the target protein. The 4-pro-S hydrogen of the glutamate residue is removed and there is an inversion of stereochemistry at this position.
- *Synonyms* vitamin K-dependent carboxylase; γ-glutamyl carboxylase; peptidyl-glutamate 4-carboxylase (2-methyl-3-phytyl-1,4-naphthoquinone-epoxidizing)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 4.1.1.90
Reaction	peptidyl-4-carboxyglutamate + 2,3-epoxyphylloquinone + H2O = peptidyl-glutamate + CO2 + O2 + phylloquinol
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.