

protein geranylgeranyltransferase type I

Cat. No. EXWM-2796

Lot. No. (See product label)

Introduction

Description

This enzyme, along with protein farnesyltransferase (EC 2.5.1.58) and protein geranylgeranyltransferase type II (EC 2.5.1.60), constitutes the protein prenyltransferase family of enzymes. Catalyses the formation of a thioether linkage between the C-1 atom of the geranylgeranyl group and a cysteine residue fourth from the C-terminus of the protein. These protein acceptors have the C-terminal sequence CA1A2X, where the terminal residue, X, is preferably leucine; serine, methionine, alanine or glutamine makes the protein a substrate for EC 2.5.1.58. The enzymes are relaxed in specificity for A1, but cannot act if A2 is aromatic. Known targets of this enzyme include most γ -subunits of heterotrimeric G proteins and Ras-related GTPases such as members of the Ras and Rac/Rho families. A zinc metalloenzyme. The Zn^{2+} is required for peptide, but not for isoprenoid, substrate binding.

Synonyms

GGTase-I; GGTaseI

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.5.1.59

CAS No.

135371-29-8

Reaction

geranylgeranyl diphosphate + protein-cysteine = S-geranylgeranyl-protein + diphosphate

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.