

peptidase Do

Cat. No. EXWM-4102

Lot. No. (See product label)

Introduction

Description

This serine endopeptidase is essential for the clearance of denatured or aggregated proteins from the inner-membrane and periplasmic space in *Escherichia coli*. Natural substrates of the enzyme include colicin A lysis protein, pilin subunits and MalS from *E. coli*. The enzyme has weak peptidase activity with casein and other non-native substrates. The peptidase acts as a chaperone at low temperatures but switches to a peptidase (heat shock protein) at higher temperatures. Molecular chaperones and peptidases control the folded state of proteins by recognizing hydrophobic stretches of polypeptide that become exposed by misfolding or unfolding. They then bind these hydrophobic substrates to prevent aggregation or assist in protein refolding. If attempts at refolding fail, then irreversibly damaged proteins are degraded by peptidases such as this enzyme. Belongs in peptidase family S1C.

Synonyms

DegP; DegP protease; HtrA; high temperature requirement protease A; HrtA heat shock protein; protease Do; Do protease

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 3.4.21.107

CAS No.

161108-11-8

Reaction

Acts on substrates that are at least partially unfolded. The cleavage site P1 residue is normally between a pair of hydrophobic residues, such as Val|Val

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.