

## 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; HtrA 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 $\downarrow$ 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.