

Recombinant Escherichia coli Periplasmic serine endoprotease DegP(degP)

Catalog No: #AP70976

Package Size: #AP70976-1 20ug #AP70976-2 100ug #AP70976-3 1mg



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Description

Product Name	Recombinant Escherichia coli Periplasmic serine endoprotease DegP(degP)
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:27-474aaSequence Info:Full Length
Other Names	Heat shock protein DegPProtease Do
Accession No.	P0C0V0
Calculated MW	62.8 kDa
Tag Info	N-terminal 6xHis-SUMO-tagged
Target Sequence	AETSSATTAQQMPSLAPMLEKVMPSVVSINVEGSTTVNTPRMPRNFQQFFGDDSPFCQEGSPFQSSPFCQG GQGGNGGGQQQKFMALGSGVIIDADKGYVVTNNHVVDNATVIKVLSDGRKFDKMGKDPKRSIALIQQN PKNLTAIKMADSDALRVGDYTVAGNPFGLGETVTSGIVSALGRSGLNAENYENFIQTDAAINRGNSGGALVNL NGELIGINTAILAPDGGNIGIGFAIPSNMVKNLTSQMVEYGGVKGELGIMGTELNSELAKAMKVDAQRGAFVS QVLPNSSAAKAGIKAGDVITSLNGKPISSFAALRAQVGTMPVGSKLTLGLLRDGKQVNVNLELQQSSQNQVDS SSIFNGIEGAEMSNGKGDQGVVVNNVKTGTPAAQIGLKKGDVIGANQQAVKNIAELRKVLDSKPSVLALNIQR GDSTIYLLMQ
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

DegP acts as a chaperone at low temperatures but switches to a peptidase (heat shock protein) at higher temperatures. It degrades transiently denatured and unfolded proteins which accumulate in the periplasm following heat shock or other stress conditions. DegP is efficient with Val-Xaa and Ile-Xaa peptide bonds, suggesting a preference for beta-branched side chain amino acids. Only unfolded proteins devoid of disulfide bonds appear capable of being cleaved, thereby preventing non-specific proteolysis of folded proteins. Its proteolytic activity is essential for the survival of cells at elevated temperatures. It can degrade IclA, ada, casein, globin and PapA. DegP shares specificity with DegQ. DegP is also involved in the biogenesis of partially folded outer-membrane proteins (OMP).

References

Covalent linkage of distinct substrate degrons controls assembly and disassembly of DegP proteolytic cages.Kim S., Grant R.A., Sauer R.T.Cell 145:67-78(2011) Research Topic:Others

Note: This product is for in vitro research use only and is not intended for use in humans or animals.